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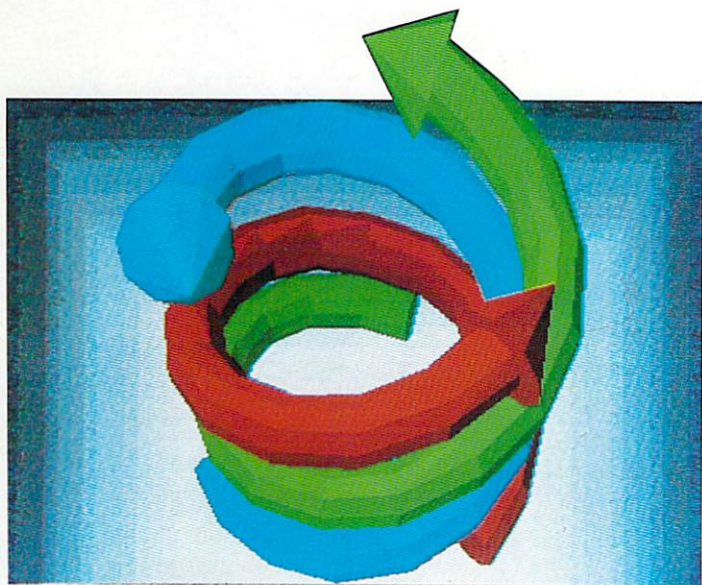
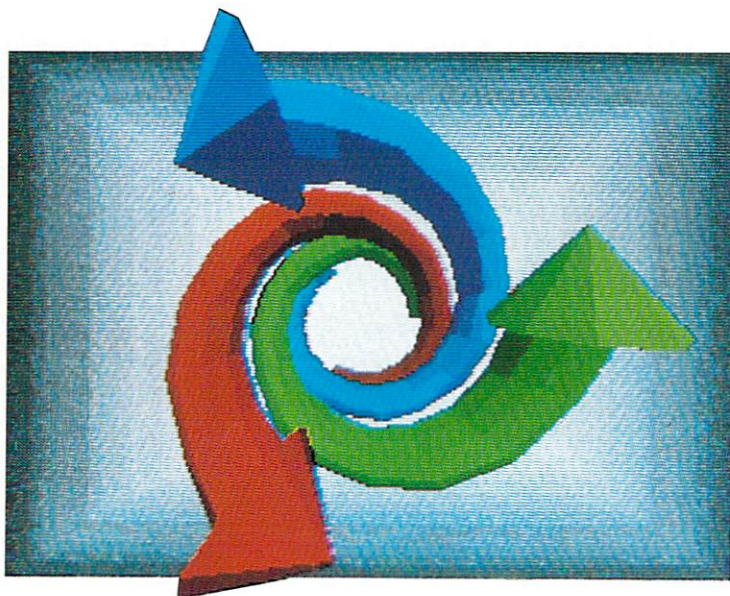
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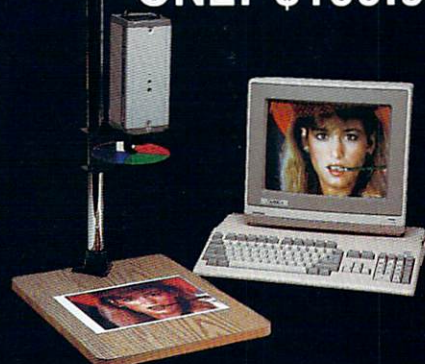
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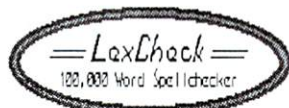


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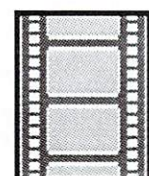


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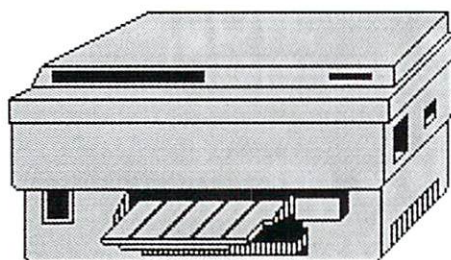


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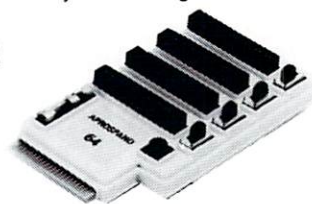
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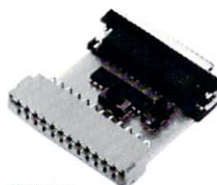
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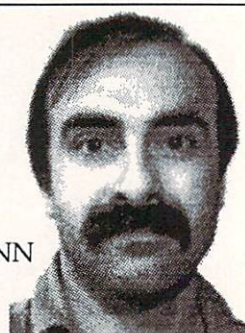


The Commodore Connection.



MARK

editors' page



BENN

THE BIG LIE

The title of this column is taken from a subtitle in an article on personal computers and MIDI that appeared in the April 1988 issue of *Electronic Musician*. Let's just quote what they had to say:

"Let me set to rest, once and for all, a horrible rumor that may have done more than anything else to raise doubts in musicians' minds about the Amiga's integrity as a music computer."

"A prominent music magazine (not *EM!*), in response to a reader's question about time discrepancies on a piece of Amiga software, claimed that something about the Amiga's multi-tasking system prevented it from being able to generate a reliable and stable MIDI clock pulse."

"That is, politely put, an error; for Commodore, nearly a grave error. The fact is that the Amiga is *perfectly* capable of generating a consistent, steady and reliable MIDI pulse...for days, weeks, months or even years on end, without a glitch, and without missing a fraction of a beat."

"The reason Amiga's timing became an issue is that its unique multi-tasking operating system architecture made third-party programmers take longer than usual to learn to program the machine, and the first few programming attempts failed to address the various time sources available in the computer. These failed programming attempts by independent software developers--not the machine itself--were the cause of the unfortunate rumors."

There's also this keen observation in the February/March 1988 issue of *Music, Computers, & Software*:

"All NTSC [standard broadcast] video is interlace; interlace is necessary for the keying used in video switching. You can record a non-interlace image to tape, but you can't pause it, freeze frame it cleanly, and/or edit it cleanly. I've been in Atari stores where the salesman's technique was to run a great Lo Res image on the ST next to a flickering Hi Res interlace on an Amiga and say, 'look at the difference.' That interlaced image the salesman used to downplay the Amiga's abilities is exactly what makes it a professional machine."

A lot of mythology has attached itself to the Amiga, and it's about time that someone cleared the air. We're especially glad to see these magazines enlightening the electronic music community. We've argued the "bad system timing" and "crummy interlace video" arguments until our throats are raspy.

Now, we won't lower ourselves to speculate on which **Antique Television Arcade Recreation Invention** company many of these stories might have originated with, but we would like to address a couple of other Amiga Myths that are still kicking around out there.

Multi-Tasking is useless. I don't think anyone who uses an Amiga believes this one anymore. How can you say it's useless to have a clock running in one corner of the screen, a telecommunications program downloading files in a second, and a paint program printing a picture in a third, all while you type a letter?

Amigas are unreliable. Yes, the Amiga has had its share of "lemons". But computers are delicate machines, and we've seen no evidence that Amigas are any less reliable than other brands. (For example, early Atari 520STs had a problem with random "bombs". The official solution? Drop the computer about a foot onto the tabletop! It seems some chips had a tendency to come unseated.) We have 10 Amigas up and running, and despite the fact that we latch onto the earliest models and use our machines day and night, we've had very few problems.

The operating system is always changing. This is supposed to be bad? The IBM/PC has been through multiple revisions of MS/DOS and nobody has complained. Truth is, the various release versions of AmigaDOS have been pretty much compatible. There was some grumbling among developers before v1.0 had finalized that each revision of the operating system invalidated what they had already done, but those were beta test versions. And the software incompatibility problems that seemed to accompany the release of v1.2 of AmigaDOS really had to do with expansion memory compatibility, not the AmigaDOS upgrade. Some older programs were having problems getting along with the full megabyte of RAM they were encountering in the new A500 and A2000. Their authors had not taken into account what might happen if they were loaded into an expanded RAM machine! Most of those programs work fine by using the Amiga's *NoFastRAM* utility, and many have been upgraded so they work just fine all by themselves.

There's no software for the Amiga. C'mon, people. There are well over a thousand Amiga titles now, with many, many more on the way. You can not only find software in every category imaginable, but in most areas you have your choice of many good to excellent titles. And there are programs to do things on the Amiga that just simply can't be done on other computers, period.

The Amiga is crash-prone. Not any more. True, AmigaDOS v1.0 seemed to be pretty shaky, but the latest version is solid. I find that Amiga software tends to crash now only if it's a very early (read: not debugged) version, or if it's written by someone who knows little about the machine. In any case, this problem can't be laid on the Amiga and its operating system any more.

Commodore will go out of business and leave you with an orphan machine. Commodore went through some tough times there, but they've turned a healthy profit for the last couple of years, due mainly to conservative management and strong Amiga sales. Commodore has been around for 30 years, and is one of the biggest personal computer companies in the world--much bigger and stronger than Atari, and about on a par sales-wise with Tandy. You don't have to worry about Commodore.

Truth is, the Amiga has very few problems that aren't shared by other computers, and it has capabilities that no other computer can even touch. There is software galore, and Commodore is not only solvent but strong. So when someone puts down the Amiga, don't be afraid to jump in and defend it. It's a fine machine with more power for the price than any computer ever made.

-Mark & Benn

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INFO began in 1983 and was originally produced quarterly (sort of) by one person working out of a spare bedroom with one C64, a dot matrix printer, one disk drive, crude software, and absolutely no publishing experience (see Issues #15 & #16 for the complete lurid history). INFO is now produced bi-monthly by a core group of 6 regular all-purpose computer nerds out of a renovated brewery in beautiful Iowa City, Iowa.

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Please do not call the INFO offices or send self-addressed stamped envelopes expecting a personal reply. We just don't have the staff to handle it. We wish we did. Right now we have two choices: put out a magazine, or answer all the mail and phone calls. We hope you'll settle for the magazine.

U.S. Mail From: Travis Lee Clark, Wells NV

Through all the quality software reviews, etc., and other good bimonthly columns you do, why do you (in your *Magazine Index*) seek to always slander *COMPUTE!* and *COMPUTE!'s Gazette's* programs, especially the way they have (and I agree with you wholly on this) "milked *Speedscript* and related programs along", when you don't even produce programs yourself? It is usually considered quite stupid to not "practice what you preach". Heck, why didn't you just tell us that you don't have any programming abilities, and that you are a little skeptical about making such publications? That's the truth (except for your "*Error-Checker*" program--I found that a great parody!), and until I see a program from you, I won't believe otherwise. Print my letter--I dare you! There's eighty bucks riding on your reply, and I don't believe you can come up with a good enough answer to satisfy me! P.S. A stupid answer like you give most readers will not satisfy me!

10 REM A MILLION APOLOGIES

20 PRINT "Dear Travis Lee Clark:"

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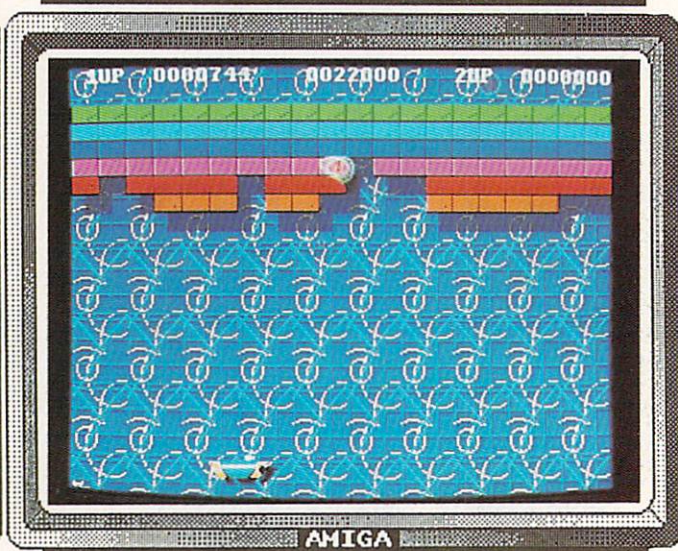
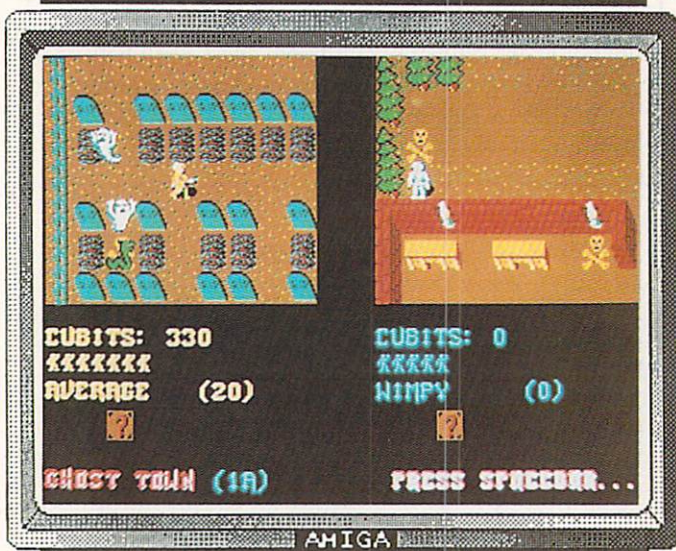
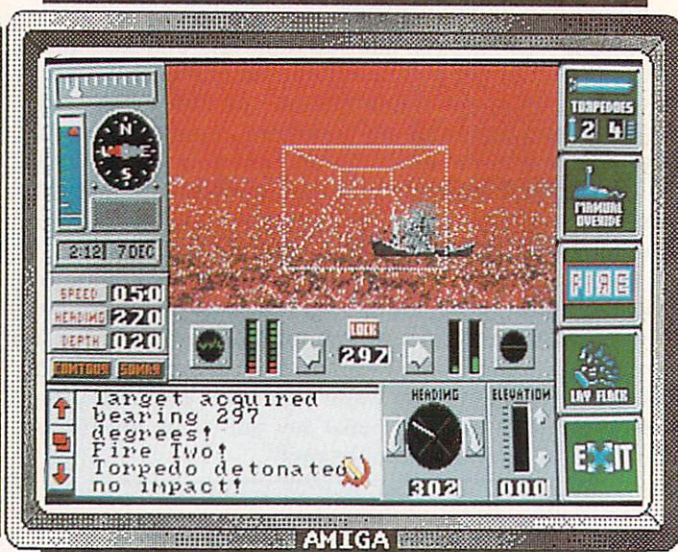
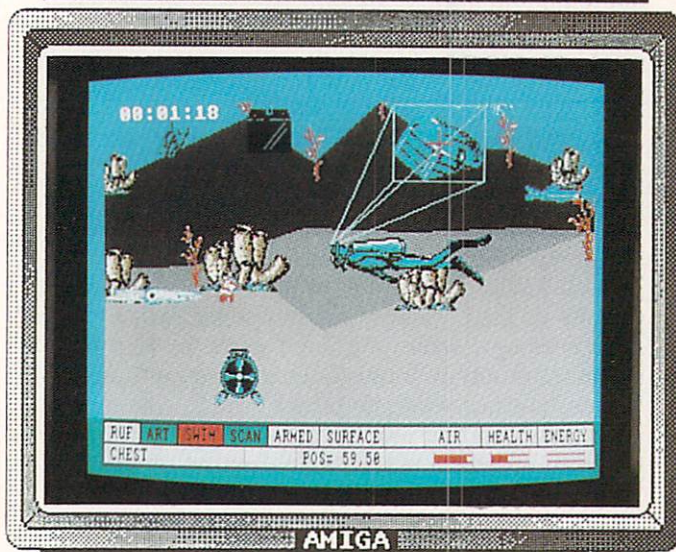
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60 PRINT "SINCERELY, -MARK & BENN"

70 PRINT "P.S. Please send our share of the \$80 to:"

READER MAIL CONTINUED ON PAGE 34...

THE GALLERY



BREACH

Omnitrend
PO Box 733
West Simsbury, CT 06092

INIFO - rated

Breach is "a single-player tactical-level combat game" which combines elements of standard board war-gaming, fantasy role playing, and graphic adventuring. The graphics are stylized and a bit flat, but better than most war-gamer fare. Players lead squads of Federation marines thru the several included scenarios, building the squad leader's cumulative experience and abilities for future challenges. A "scenario builder" facility allows designing and modifying new or existing scenarios, and additional scenario disks are promised. Lots of weaponry, explosives, and worthy computer opponents. -BD

JET

subLOGIC
713 Edgebrook Dr.
Champaign, IL 61820
(217) 359-8482

INIFO - rated

The story goes that one of Jay Miner's motivations while designing the Amiga was his desire for a personal computer that would also be a supreme flight-simulating machine. He gave us the machine, and now subLogic has given us the first flight-sim software that could match Jay's early vision. JET is fast, smooth, loaded with hot options and responsive controls. Flying the F-16 or the carrier-launched F-18 (with engines thundering) over solid-modeled terrain is a peak game experience. This is one you have to have. -BD

RETURN TO ATLANTIS

Electronic Arts
1820 Gateway Dr.
San Mateo, CA 94404
(415) 571-7171

INIFO - rated

Announced over a year ago, Return to Atlantis is a bit of a let-down. The scenery is nice, and the 3D ocean terrain is interesting, but the action is pokey, and many of the graphics screens, while nice pieces of art, come off as thin facades covering some surprisingly shallow game-play: cute but uninvolved. Also, there are way too many disk swaps even on a two-drive system. I haven't seen anyone yet who really likes playing this game after initially scoping it out. Personally, I'd rather watch old reruns of Sea Hunt. -TM

HUNT for RED OCTOBER

Datasoft
19808 Nordhoff Place
Chatsworth, CA 91311
(818) 886-5922

INIFO - rated

Based on Tom Clancy's best-selling novel, RED OCTOBER puts you in the shoes of a senior Soviet submarine commander who has decided to defect to the West, and hand over his highly-advanced nuclear missile U-Boat to the Americans. A departure from the usual search and destroy submarine simulation, RED OCTOBER has more strategic and political considerations figuring into the action, as you try to avoid detection by your comrades and country. There is lots of fun instrumentation, a full load of torpedos, and plenty to keep you busy! -BD

TIME BANDIT

MicroDeal
576 S. Telegraph
Pontiac, MI 48053
(313) 334-8729

INIFO - rated

TIME BANDIT is a lively and colorful game for one or two players that combines arcade-like animation with a dash of text-adventure dialogue and riddle-solving. In the 2-player mode, each player has a separate screen area, but will appear in the other player's field of view when the two are nearby. Little icons on the landscape open up into mazes with treasure, keys, baddies, and surprises. One icon even sends you into a brief Pac-Man sequence! Better than average gaming for a wide range of ages. -

AMEGAS

Digitel
104 W. Seneca, Ste. 4
Tampa, FL 33612
(813) 933-8023

INIFO - rated

AMEGAS is clearly an example of the student surpassing the teacher. It started as an Arkanoid clone, but added features instead of taking them away. The screens are full-width, making them tougher to clear. Attributes drop down the same way, but are stored until the mouse is clicked. Bricks are marked with the number of hits they require to remove, and there are more types of them, as well as more types of attributes. Another plus is the saving of hi-scores to disk. If you like Arkanoid, you'll go wild for Amegas. -TM

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HOLLYWOOD POKER

Digitek
104 W. Seneca, Ste. 4
Tampa, FL 33612
(813) 933-8023

INFO - rated



It's nice to see technology being applied in new areas every day. HOLLYWOOD POKER is clearly a leap forward in the state of the art of computer strip-poker. Thanks to recent advances in video digitizing, practitioners of the venerable art of 5 card draw may now pit their skills against much more realistic opponents than has previously been possible. The assorted female partners included on this disk play at varying degrees of skill, but with patience and practice, you can eventually own their collective scanty wardrobe. rated R: total but demure frontal nudity. -BD

TETRIS

Spectrum Holobyte
2061 Challenger Drive
Alameda CA 94501
(415) 522-3584

INFO - rated



Tetris is the first commercial computer game created in the Soviet Union. This IBM port is a simple but addictive strategy and reaction puzzle/ game enhanced by a great (probably British) soundtrack. You use your joystick to steer falling pieces into place, and score points as they fill complete rows. The concept is fine, but the implementation is unsophisticated. This C64 version suffers from "IBM Conversionitis" many of the IBM game's extra features are missing, like replay of last game and optional starting heights. For puzzle fans only. MB

GALACTIC INVASION

Microillusions
17408 Chatsworth St.
Granada Hills CA 91344
(818) 360-3715

INFO - rated



GALACTIC INVASION is the second in Microillusions' announced "One to One" series: inexpensive games which may each be played either solo against the computer, with a second human on a split screen, or across phone lines via modem with a remote opponent. I liked the graphics, sound, and game-play of the debut title, *FIREPOWER*, better, but those who prefer the ambience of deep space for their violent conquests may not agree. At any rate, I think the series is off to a good start, and I'm already looking forward to the next installment. -BD

STEALTH MISSION

subLOGIC
713 Edgebrook Dr.
Champaign, IL 61820
(217) 359-8482

INFO - rated



As amazing as it seems, companies like subLOGIC are still pushing the envelope of 8-bit performance on the C64. STEALTH MISSION sets new standards in what can be squeezed out of these 1 MHz machines. Smoother, faster flying (partly due to a smaller view window as well as new animation techniques), and a host of well conceived features and options put STEALTH MISSION at the top of the C64 flight simulator heap. 3 jets, eight missions, 10 skill levels, HUD, targeting computer, airborne refueling, avionics, multiple viewpoints, and Scenery Disk compatibility: the works! -BD

SPACE RANGER

Mastertronic
7311 B Grove Rd.
Frederick, MD 21701
(310) 695-8877

INFO - rated



Here is one of those delightful games that is irresistibly "cute", and yet plays well and looks good. Like a whimsical variant of *Defender*, SPACE RANGER centers around saving helpless planetary inhabitants before the evil spacecraft sucks them up, one at a time, and spirits them away to I can only guess where. A radar screen along the bottom lets you keep track of the whole fracas. 3 successive planets each contain a wacky assortment of critters, including the snowball-throwing rhinos pictured here. Great fun! -BD

QUESTRON II

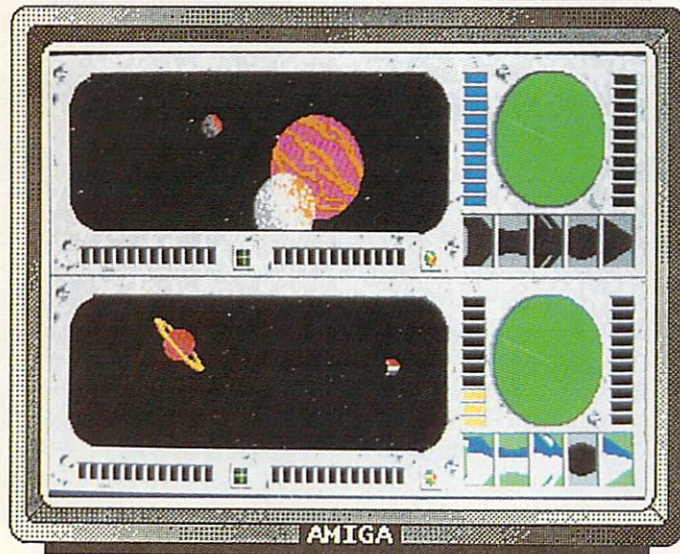
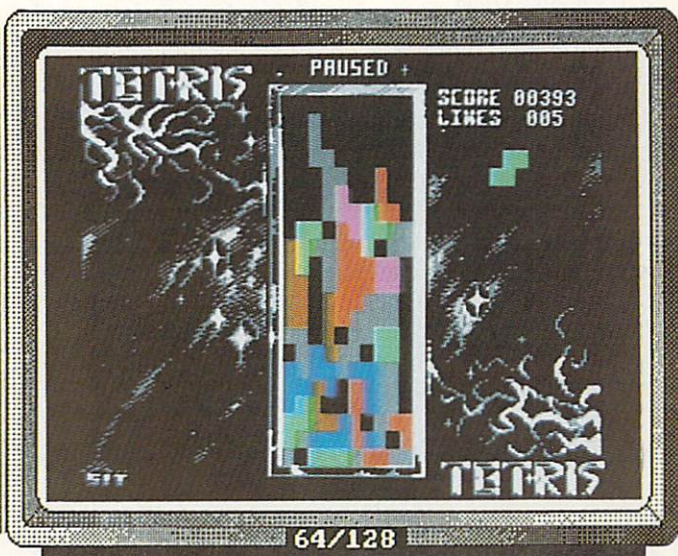
Strategic Simulations
1046 N. Rengstorff Ave.
Mountain View, CA 94043
(415) 964-1353

INFO - rated



I would describe QUESTRON II as equal parts *Legacy of the Ancients*, *Bard's Tale*, and maybe a bit of *Gauntlet* to boot. Pretty familiar stuff, but with especially crisp graphics and a nice booklet with colorful background material to help add detail to the fantasy world being conjured. Otherwise, you've got yer hit points, and you've got yer gold, and you've got yer magic, and you've got yer monsters, etc., etc. What else can I tell you - go fantasize, already -BD.

THE GALLERY



SPEED BUGGY

Data East
470 Needles Drive
San Jose, CA 95112
(408) 286-7074

INFO - rated



This is actually a real decent translation from the coin-op arcade original. The animation is lively, and all the little touches are there, like the inset track diagram showing your progress. This game is light-hearted, easy enough for my 3 yr. old, and challenging enough for me. Good joystick action, and decent sounds add to the fun of motoring down the hazard-filled race courses, bouncing over small rocks and logs and collecting flags and whatnot for points. User may select from several different race tracks. -BD

KICK START II

Mastertronic
7311 B Grove Rd.
Frederick, MD 21701
(310) 695-8877

INFO - rated



Mastertronic has really improved their software line over the last year, and KICK START II continues the trend. Two independently-scrolling windows show the progress of two motorcycles (either a friend or the computer can control the second) as they race along one of twenty-some different obstacle courses (including night courses). Hazards include flame jets, ski-jumps, moving pistons, mud holes, and open water. Joystick gives total control over cycle maneuvers. Another solid choice for multi-age groups. -BD

TAI-PAN

Mindscape
3444 Dundee Road
Northbrook, IL 61162
(312) 480-7667

INFO - rated



The novel was a rousing yarn, and the movie was a bomb. The game is just plain boring. The object is to amass enough cash and assets to become the Tai-Pan (Supreme Leader) of the Asian trading community in 1841. You have to borrow money to start your fleet, and repay the loan on time or lose your head. There's far too much running around to get set up to go on your voyage, the port cities all look alike, and whoever dreamed up that flickering color-bar business during disk access should lose his head. Yikes! -TM

HAT TRICK

Capcom
1283-C Old Mt. View/Alviso Rd.
Sunnyvale CA 94089
(800) 843-4632

INFO - rated



Capcom brings another coin-op arcade fixture into your home with HAT TRICK, a hockey game for one or two players. Your joystick controls either the red or blue player as you try to drive the puck into the opposite goal, while defending your own. A nice control interface smoothly transfers between your main player and your goalie. Just like the arcade version, the "ice" becomes scarred from your skates, and eventually has to be resurfaced by the Zamboni machine between periods. A great conversion job with a fun game. -BD

AIRBORNE RANGER

MicroProse
120 Lakefront Dr.
Hunt Valley, MD 21030
(301) 667-1151

INFO - rated



Continuing in their well-established groove of "WarWare", MicroProse has released this well-engineered simulation of individual combat and infiltration. Your ranger is parachuted into one of numerous battle zones along with equipment bags and maps. Missions range from aircraft sabotage to spying. Obstacles include mines, barricades, enemy positions, and roving troops. You control the stance, speed, direction, and combat actions of your Ranger, crawling through trenches, running for cover, and fighting hand to hand. Well-done for those who can accept the theme. -BD

SKYFOX II

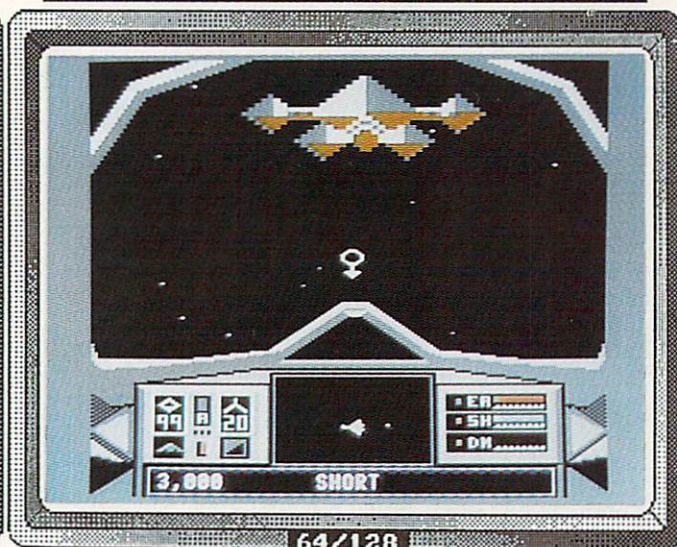
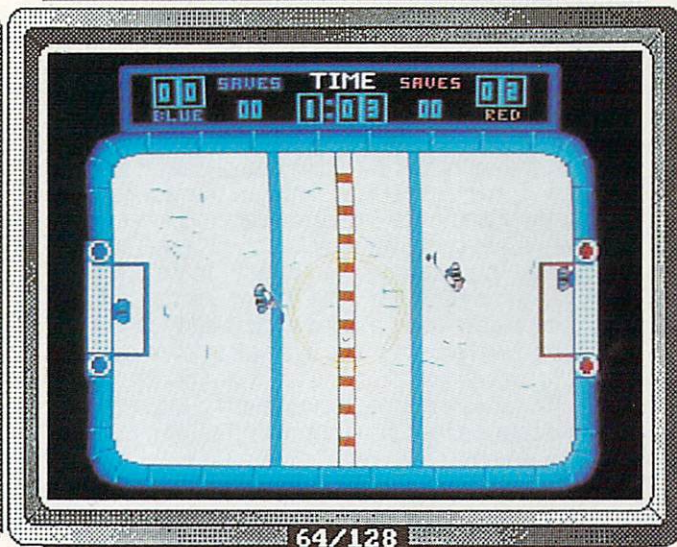
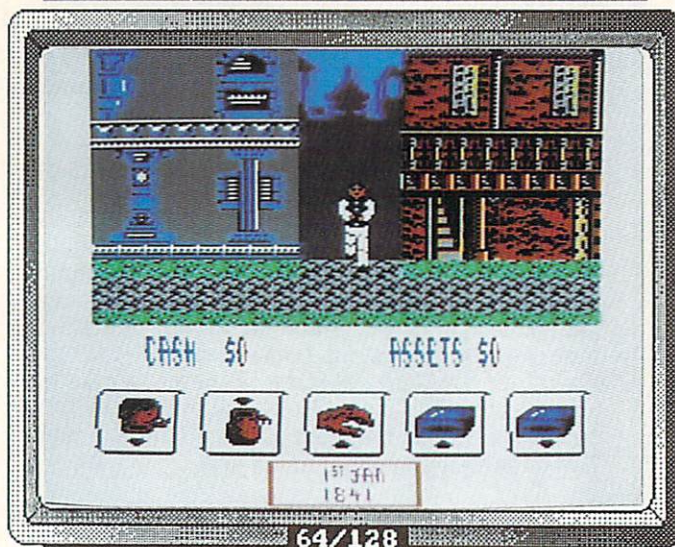
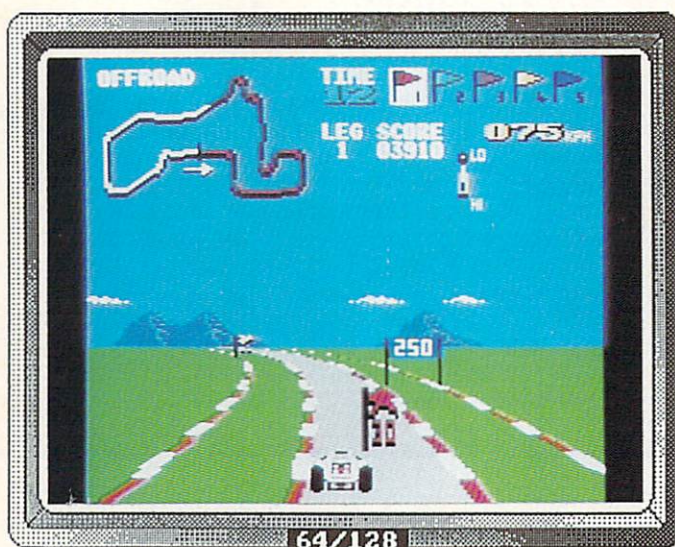
Electronic Arts
1820 Gateway Dr.
San Mateo, CA 94404
(415) 571-7171

INFO - rated



SKYFOX was quite a hit in its time, and like many hits it has generated a sequel, creatively named SKY-FOX II. Personally I liked the original better (and ARCTIC FOX even better than that), but for those of you who didn't get enough "FOX" the first time around, here's another fix. SKYFOX II takes players into deep space for some head-to-head with Xenomorph fighters, through some nasty asteroid fields, and warping down the nullspace highway of wormholes. Go easy on those Photon Pulse Bombs,

THE GALLERY



VISUAL AURALS

Visual Aural Animation
PO Box 4898
Arcata, CA 95521
(707) 822-4800

INFO

PREVIEW

A unique combination of hardware and software, Visual Aurals is (at the very least) a super "light-organ", converting music (or any sound) into compelling, hypnotic dynamic abstract Amiga graphics. Using a mind-boggling number of on-screen controls, the user has infinite control over motion, effects, shapes, color and texture of the display. The small hardware module plugs into the joystick port and accepts both line and built-in mike input. Hours of psychedelic fun - possible applications for professional video work.

-TM

THE GRAPHICS STUDIO

Accolade
20813 Stevens Creek Blvd.
Cupertino CA 95014
408-446-5757

INFO

PREVIEW

The latest paint program for the Amiga is a port from the Apple IIgs, and shows its origins in its non-standard pull-down menus and drop-down selection gadgets. It includes all of the essential drawing tools (circles, rays, mirrors, clips, etc.), though it lacks some "turbo-paint" options like perspective drawing. But this 32-color paint program has some unique options of its own, such as automatic dropshadows, an 8 1/2" x 11" workpage, concentric objects, outlining filled shapes, swapping/ replacing colors, and rounded-corner boxes. Graphics Studio works only with lo-res and med-res screens, without overscan, interlace, or HAM mode. A slideshow program is included.

- MB

PERFECT VISION

SunRize Industries
3801 Old College Rd.
Bryan TX 77801
409-846-1311

INFO

PREVIEW

This framegrabber has its own buffer memory, which makes it a totally different animal than Digi-View. Perfect Vision's strength is digitizing in real time; it can capture a frame from a standard video source (like a camera or videotape) in 1/60 of a second. This means you can digitize "on the fly". The image you get is black and white, though you can digitize static color images using a video camera and the plastic color filters provided. They also promise a "color splitter" add-on that will let you digitize in full color from any color source. The software includes some interesting options, such as a mode that updates the image twice a second, and the 4-image view option shown here.

-MB

PHOTON PAINT

Microillusions
17408 Chatsworth St.
Granada Hills CA 91344
818-360-3715

INFO

PREVIEW

This new HAM mode paint program is a real honey. It's got an intuitive feel, is filled with tools, works fast, and gives you very nice results. You can, of course, work in all 4096 Amiga colors, from a continuously redefinable palette of 64. All of the usual circles, boxes, lines, fills, etc., are implemented. You've also got some nice extras, like dithering, gradient shading, and brush wrap around 3D objects. Even the fill mode gives you three options: normal flood fill, fill to an edge of a defined color, and free-shape fill. I especially like the quick pop-up option screens. But the best thing about Photon Paint is that you get marvelous HAM results with a quick, "normal" paint program feel.

-MB

SHAKESPEARE

Infinity Software
1144 65th St. Ste. C
Emeryville CA 94608
415-420-1551

INFO

PREVIEW

This program is uniquely a color desktop publishing package. Shakespeare works with Amiga ColorFonts, standard Amiga fonts, and IFF graphics. It employs a palette-swapping scheme to allow you to use all 4096 Amiga colors without going into HAM mode. It incorporates all the standard DP tools, including in-box text editing, picture cropping and sizing, text flow around graphics boxes, etc. Editing is done on a partial-page size screen, but a full page preview option is provided. This is one of the first products to ship with the new faster and better V1.3 printer drivers, which should make for some nice printer output. It also supports PostScript devices.

- MB

FACTS ABOUT LEASING

Lincoln-Mercury Leasing HQ
PO Box 2909
Farmington Hills MI 48333-9912
800-922-9073

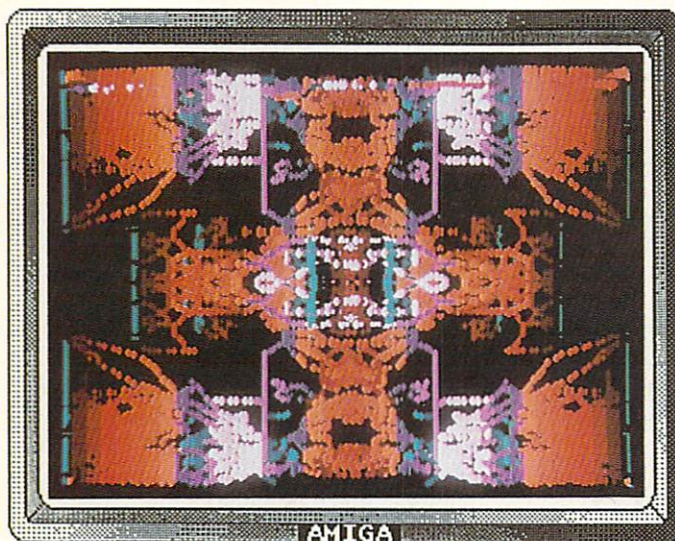
INFO

PREVIEW

Free stuff is relatively rare anymore, so you may want to take advantage of this offer from Ford: a disk full of information on their auto leasing program. This menu-driven catalog contains descriptions and digitized photos of all the models available under their leasing program. The digitized photos are fuzzy, but hey, it's free! The literature that comes with the disk includes an offer for a free six-month subscription (to an Amiga magazine we won't name) if you put yourself through the ordeal of stopping by your local Lincoln-Mercury dealer for the full sales pitch. When you call for your free no-obligation disk, be sure to tell them you need one for the Amiga; they offer similar disks for the IBM/PC.

-MB

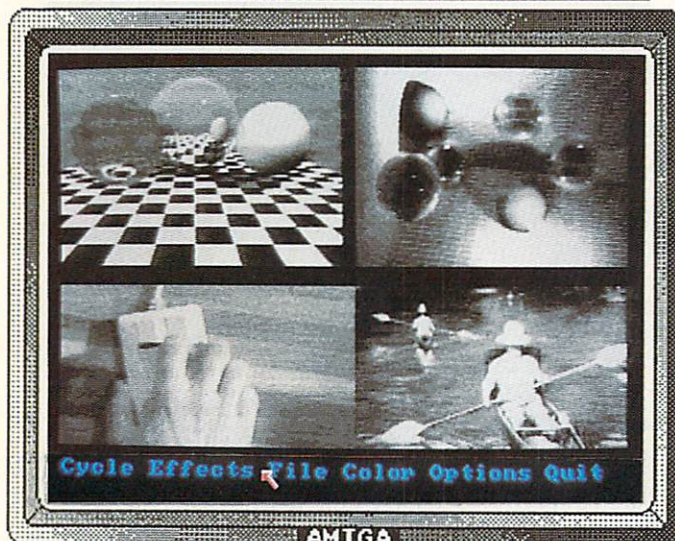
THE GALLERY



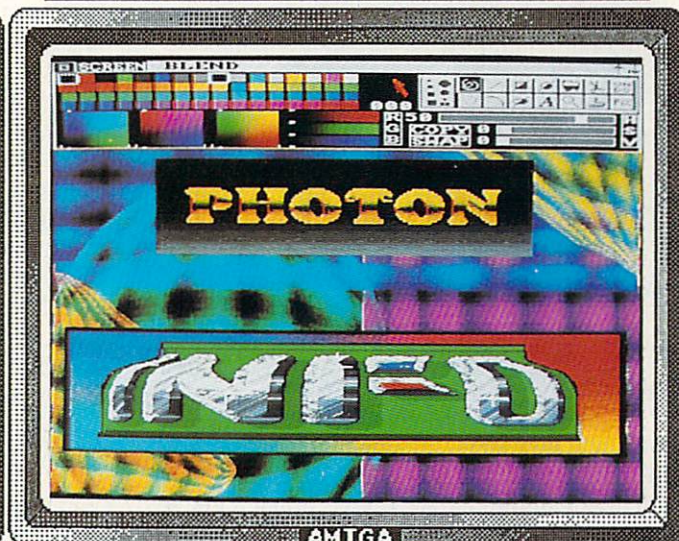
AMIGA



AMIGA



AMIGA



AMIGA



AMIGA



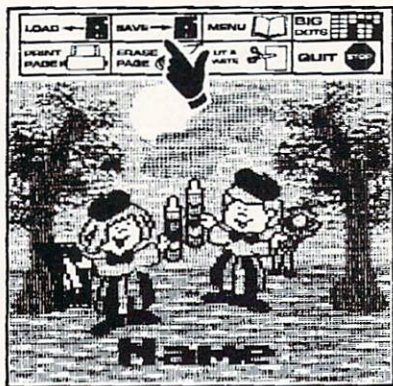
AMIGA

New Products

Commodore 64

RASTER REMBRANDTS

Masterpiece is a new multicolor paint package for the C64 that allows special effects like scaling, rotation, twisting, and folding of onscreen art. \$29.95, from: *Scorpion*, 19 Harbor Dr., Lake Hopatcong NJ 07849, 201-663-0202.



JUVENILE TOMES

Color Me from *Mindscape* is a package to let children (grades K through 5) make their own coloring books. It has a kid-level drawing program and comes with two disks of clip art, one of which features Rainbow Brite characters. The box comes with paper, buttons, crayons, and other keen stuff. *Mindscape* also offers additional clip art disks (\$9.95 each) and supply refills. List price is \$34.95. 3444 Dundee Rd., Northbrook, IL 60062. 312-480-7667.

BZZZZZZZZ

Busy Bee Software sent us a copy of their new wordprocessing package, **The Write Stuff**. The list of features almost completely fills the cover of the manual (and they're listed in little-bitty type). There's also a talking version available that uses S.A.M., the Software Automatic Mouth. The silent version is \$19.95, the talkie is \$24.95. It comes with keyboard overlays for the C64 and C128. PO Box 4655, Santa Barbara, CA 93140. Also available from Briwall.

LIKE A BUNNY

RapiDOS from *Chip Level Designs* is offering a replacement ROM set to turn your C64 and 1541 into a much faster parallel disk operating system. It requires considerable chip swapping and board installation. \$49.95 for the regular version, \$99.95 for the Professional one. PO Box 603, Astoria, OR 97103-0603. 503-861-1622.

DRIVE YOU CRAZY?

1541/1571 Drive Alignment (\$34.95) from *Free Spirit* can salvage your disk drive, and maybe your sanity. Works on the 1541, in all modes of 1571, and with the C64, C128, or SX64. Instructions are given for loading the program on a drive that's so far gone it won't load anything else. Also from *Free Spirit* is **Super 81 Utilities** (\$39.95), which will perform file transfers between different format drives. It also includes a sector editor, drive monitor, and a bunch of other utilities. It comes on both 5 1/4" and 3 1/2" disks so you can load it from any drive. 905 W. Hillgrove, Ste. 6, La Grange, IL 60525. 312-352-7323.

NEWSLETTER PUBLISHING

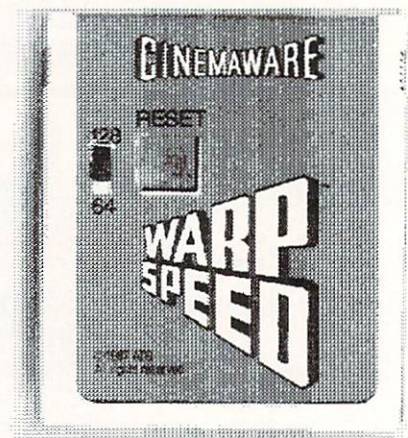
Running under GEOS, **Personal Newsletter** (\$49.95) from *SoftSync* is an alternative to *geoPublish*. Disk accesses have been reduced to a minimum and it includes utilities for importing graphics from other sources. 162 Madison Ave., New York, NY 10016. 212-685-2080.

COPING WITH GEOS

geoCOPE is a ML editor/assembler for the GEOS system. It includes such features as find, replace, cut & paste and copy. 6502 mnemonics and addressing are supported, along with labels and macros. A transfer utility for pulling in text from other editors is included, as is a hex calculator. \$24.95 from *Bill Sharp Computing*, PO Box 7533, Waco, TX 76714.

SEX EDUCATION

Intracorp has come out with **Birds 'N Bees**, software to help teach your child about sex. Designed by psychologists, it is intended as an aid for parents in teaching their kids about sexual development, reproduction, and contains a section on protecting themselves from strangers. \$49.95 for the C64 version, \$59.95 for Amiga. 14160 SW 139th Ct., Miami, FL 33186. 48033. 313-626-7208.



WARP FIVE, MR. SULU

Demoed at Winter CES for *INFO*, **Warp Speed** is *Cinemaware's* entry into the Great Utility Cartridge Race. It's switchable between C64 and C128, works with 1541, 1571, or 1581 drives, and is blisteringly fast. Features include multi-function copiers and an integrated sector editor and ML monitor. These last will let you pull in a sector, make changes to it, and write it back out to the same disk or a different one. List \$49.95. 4165 Thousand Oaks Blvd., Westlake Village, CA 91362. 805-495-6515.

COLORING BOOKS

MicroAds is shipping **Coloring Book Page Maker**, a utility that will import Print Shop graphics and blow them up into full-pages for children, or grown-ups for that matter, to color. \$7.95 from *MicroAds*, 145 E. Norman Dr., Palatine, IL 60067.

COMMODORE 128

FILE CONVERSION

Big Blue Reader 128/64 has arrived. *SOGWAP* has put the 64 and 128 versions of their Commodore/MS-DOS file transfer utility on the same disk. A 1571 or 1581 disk drive is required, and the file transfer can be made in either direction. It's all menu driven. \$45 or, if you already have an earlier version, \$18 to upgrade. 115 Bellmont Rd., Decatur, IN 46733. 219-724-3900.

JUGGLING DISKS

Speaking of file conversion, **Jugg'ler-128** from *Transactor Publishing* will analyze, read, write, format, and convert many CP/M MFM format disks on a 1571 (including the new models) or 1581. \$17.95 US or \$19.95 Canadian. 67 Callender St., Toronto, ON M6R 2H2 Canada.

BASIC 8

If you're in need of examples and explanations for BASIC 8, you might want to check out a booklet from *Software Support International* (\$19.95 + \$3 S&H). It gives you program listings, along with line-by-line explanations of just what's going on. 2700 NE Andresen, Vancouver, WA 97661.

WHAT! NO DIP?

Super Chips is a set of three custom operating system chips devised for the C128 by *Free Spirit*. Added commands include search & replace, and automatic appending of a disk program to one already in memory. \$49.95. 905 W. Hillgrove, Ste. 6, LaGrange, IL 60525. 312-352-7323.

AMIGA

3D MOTION

If you've watched the *Juggler* demo with a desperate longing to have the capability to produce such animations yourself, you'll love *Byte-By-Byte's Animate 3D* (\$149.95). It gives you tools for wireframe preview, data compression in RAM with real-time expansion, motion blur and other effects, a scripting language, overscan, and much, much more. It requires *Sculpt 3D*. Arboretum Plaza II, 942 Capital of Texas Hwy. N., Suite 150, Austin TX 78759. 512-343-4357.

SUMMASKETCH

If you've ever lusted after one of *Summagraphics'* super-accurate drawing tablets for your Amiga, now you can satisfy your longing. R & DL Productions has come up with a package deal that includes the tablet and driver that will let you use them with your favorite graphics software. Two sizes are available: 12" x 12" (\$549) and 9" x 6" (\$449). It comes with a stylus, although a puck (a mouse-like device with crosshairs in a window) is an option at an additional \$50. R & DL Productions, 11-24 46th Ave., #2A, Long Island City, NY 11101. 718-392-4090.

THE STAND

The nifty monitor stand for the A500 we saw at *Phoenix'* booth at CES is now shipping. It fits into the last groove at the back, (see picture below), providing a solid platform and leaving room underneath for all those messy cables. It's steel and stands 3 3/8" high. \$29.95. PO Box 156, Clay Center, KS 67432. 913-632-2159.

NOT FOR PLANTS

PhotoSynthesis is an image processing system from *Escape Sequence*. It consists of more than 40 basic image operations as well as an interpreted language for advanced functions, allowing even for script files. Output includes a PostScript option. \$149.95. PO Box 1101, Troy, NY, 12180. 518-274-1547.

PIGSKIN

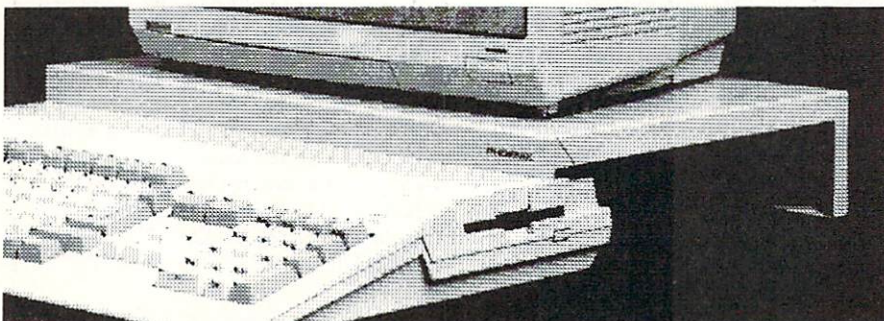
Quarterback actually has nothing to do with football. It's a hard drive backup utility from *Central Coast* that retails for \$69.95. It has a variety of options for selective backups and error handling. 268 Bowie Dr., Los Osos, CA 93402. 805-528-4906.

HOT LICKS

Infinity Software's **Hot Licks** is a great little synthesizer/ keyboard program. It turns your Amiga's keyboard into a piano keyboard and lets you play tunes using any standard Amiga instruments files. But it also lets you record, cut, paste, and play back music scores. There's an integral metronome, up to twenty channels of music, tape-recorder type controls, and a built-in rhythm box. This is one hot little synthesizer! \$39.95. 1144 65th St., Emeryville CA 94608. 415-420-1551.

ROLL-YOUR-OWN HARD DRIVE

The Amiga demands storage, and lots of it. Unfortunately, mass storage is not cheap. If you're handy around IC chips and feel confident with a project that requires wirewrapping about a half dozen ICs, *PALOMAX* has plans for a project that could save you 1/2 the cost of a hard drive system. Their package includes a floppy disk with drivers, format, backup utility, and more, as well as full documentation on construction, parts sources, schematics, etc. The controller is capable of working with a wide variety of IBM-compatible MFM and RLL ST506/412 drives. Versions can be built for any model of Amiga. Kits and software are \$169. The backup utility is available separately for \$35. 424 Moreboro Rd., Hatboro PA 19040. 215-672-6815.



THE HARD STUFF

Great Valley Products have announced the Impact A2000-SCSI RAM controller board with 512K of expansion RAM for the A2000, retailing for \$495. They're also marketing the A500-HD/RAM subsystem that combines a SCSI controller, 20MB hard drive and RAM expansion. Unpopulated, it's \$995. 512K RAM adds \$245, and 1MB \$445. PO Box 391, Malvern, PA 19355. 1-800-426-8957.

TSHELL

An 83K shell program that has a syntax that's similar to C. Tshell sports full editing and history, along with 39 built-in commands, I-O redirection (like pipes), looping commands, commands from the AmigaDOS Replacement Project, and lots more. The press release even included a guess-the-number game written with just Tshell commands! \$50 from Metran Technology, Box 890, West Oneonta, NY 13861.

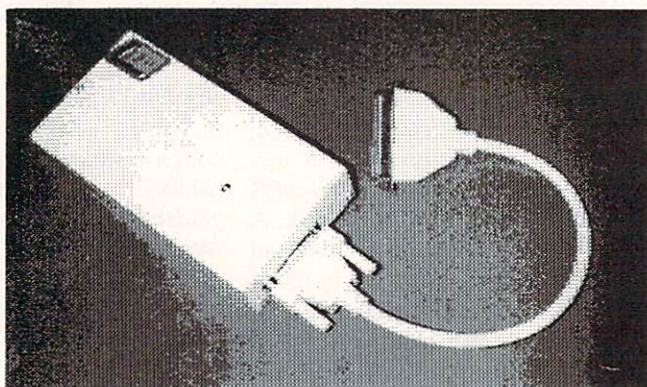
BENCHMARK

Benchmark Modula-2 from Oxixi is about as complete as any language we've seen for the Amiga. The preliminary version that showed up here came on six disks and included two 8 1/2 x 11 inch-and-a-half thick manuals. There's one disk full of executable examples, and another with the source for each. There's an editor, compiler, linker, complete libraries... if you can't write a Modula-2 program with this package, it's not Oxixi's fault! PO Box 4000, Fullerton CA 92634, 714-999-6710.

ASSEMBLER, ET AL.

The Cape68K (\$89.95) assembler is available from Inovatronics. The editor supports both EMACS and Wordstar commands as well as AREXX macro processing language. Also available is Inovatools I (\$79.95), a package of subroutines in linkable C and AmigaDOS system libraries. Inovatronics is now up to three, count 'em, three versions of Power Windows, all of which support C and Assembler, and then either TDI Modula 2, CSI MultiForth, or TrueBASIC. Each version is \$89.95. 1113 Stemmons Freeway, Dallas, TX 75229. 214-241-9515.

C. LTD's SCSI Interface for the AMIGA



NETWORK

One of the most exciting developments in a long time is C. Ltd's plan to develop a complete SCSI Network for the Amiga based on their currently-available SCSI controller (\$200/A2000, \$250/A500, \$300/A1000). This multi-user system is planned to economically allow an office full of people to share peripherals, and to communicate and transfer data more efficiently than with currently installed "SneakerNet" systems [carrying disks back and forth]. Hookup is via standard flat or round SCSI interface cable, with an optional fiber optic adapter available later. A secondary addressing scheme allows the net to exceed the normal 7-unit limitation of SCSI systems, making the number of nodes unlimited for all practical purposes.

Planned network options and equipment (prices are preliminary) include:

SCSI hard drives, currently available in capacities from 20 megabytes to 1.2 gigabytes.

A 10 megabyte Konica SCSI 5.25" floppy drive (\$699/A2000 internal, \$899/A1000).

A dumb 300 dpi SCSI laser printer (\$2499). Memory-intensive driver software would be required for each Amiga in the network, but would also offer several advantages, detailed below. The printer will have a throughput of 8 ppm, and is built around a RICOH engine. The price includes desktop publishing and paint software.

A DEST 300 dpi scanner (\$1250). (DEST is one of the top scanner manufacturers in the IBM/PC world.)

A 9600 baud SCSI modem (\$600-700). Switchable to 1200/2400 baud for telecommunications; the higher speed is used for document FAX.

Special versions of *Express Paint*, *Publishing Partner Plus*, and *PCLO* will be made available. The laser printer driver requires 1.25 megs of system RAM in each Amiga system, which is used to hold a 300 dpi bit-image of the page you're working on. The special-version paint, dp, and CAD packages will operate directly on the 300 dpi bit-image, allowing unprecedented image-manipulation capabilities comparable to those just now becoming available on the Macintosh II. Because the bit-image is pre-computed, printing a full page will take only 8 seconds. There will also be a new Preferences *printer.device* driver to support printing from standard Amiga programs. The software will allow the saving and loading of standard Amiga IFF images and textfiles, or the compressed storage of actual full-page bitmaps.

It will be possible to optionally set up a single Amiga with 2 megs or so as a printer file server for the entire system in applications where individual bit-image manipulation capabilities are not of great importance.

A 2-meg single-Amiga desktop publishing system with monitor, SCSI interface, scanner, laser printer, and 40 meg hard drive could be set up for about \$7000, with additional 2-meg A500 SCSI stations costing about \$1750 each. You could network an office of 6 people for less than \$16,000, with an average cost of about \$2600 each. And you could add the components a little at a time, starting with a SCSI interface for each unit and a shared hard drive. We needed this kind of setup yesterday, and we can't wait to see it in action. It could prove to be the network "for the rest of us". C. Ltd., 723 E. Skinner, Wichita KS 67211, 316-267-6322.

KIDSTUFF

If you need something to get the kids out of your hair and teach them something at the same time, *Hilton Android* has released four titles in their Robot Reader series: *Chicken Little*, *Three Little Pigs*, *Aesop's Fables*, and *Little Red Hen*. The programs are designed to help small children learn to read and require little parental supervision to use. Each title is \$29.95. PO Box 7437, Huntington Beach, CA 92615. 714-963-4584.

LIBRARIES FOR WP

All those useful adjuncts to WordPerfect that PC users gloat over are now available for Amiga users as well. The **WordPerfect Library** incorporates a notebook (rolodex-type organizer), calendar, programmable calculator, a program editor, and a game. \$125. 1555 N. Technology Way, Orem, UT 84057. 801-225-5000.

DE CART BEFORE DE HORSE?

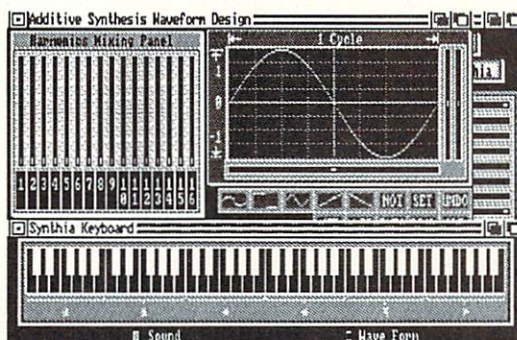
Mindware International has released **Descartes!**, a mathematical graphing tool. It even handles calculus derivatives. 110 Dunlop St. W., Box 22158, Barrie, ON Canada.

CABINETRY

Ketek has produced a **Command Center** (\$99.95) for the A500 that will hold two external drives and provides a monitor stand on top. The Deluxe model includes a fan, surge protector, and noise filter. PO Box 203, Oakdale, IA 52319. 1-800-626-4582.

PPP

Color desktop publishing is available with **Publishing Partner Professional** from *Soft-Logik*. It will perform color separations, one-degree incremental text or image rotation, object slant and twist. It also imports text from WordPerfect, Scribble, and Prowrite. \$199.95. 11131 South Towne Sq., Ste. F., St. Louis, MO 63123. 314-894-8608.



MORE MUSIC

Synthia (\$99.95), from *The Other Guys*, lets you create digital instruments to use with about any music program, or modify existing instruments. 55 N. Main St., Ste. 301D, Logan, UT 84321. 801-753-7620. (see above)

HELP DE LUXE

The latest in *RGB Video Creations* series of **DeluxeHelp** tutorial disks is aimed at *Calligrapher* users. It provides a walk-through of the program and shows you keystroke by mouseclick how to use *Calligrapher*, which is required. 2574 PGS Blvd., Ste. 104, Palm Beach Gardens, FL 33410.

LASER FODDER

S. Anthony Studios is producing a series of PostScript utilities to use with your laser printer. **LaserUp! Print 1.2** is a collection of screen dump utilities, including 4-color separations, and there's also a series of text formatting utilities available. 889 De Haro St., San Francisco, CA 94107. 415-826-6193.

BOP! BAM! BOOM!

The guys from *New Wave* had the booth next to ours at AmiExpo and we wondered whether their **Dynamic Drums** would drive us to disco. They didn't and we've been playing with their software ever since. (We digitized sounds from the Three Stooges and made them into a drum kit, and have been using it to make each other nuts.) \$79.95. New Wave also publishes *Dynamic Studio* (\$199), which adds a full-featured

MIDI sequencer to the drums. PO Box 438, St. Clair Shores, MI 48080. 313-771-4465.

'D' IS FOR DISK

Fuller Computer Systems is shipping their **Project 'D'** (\$49.95). It's a disk utility package with a variety of archive functions, system configuration options, and surprisingly, the ability to copy disks in Atari

ST, MS-DOS, CP/M, and Xenix formats. PO Box 9222, Mesa, AZ 85204-0430. 602-835-5018.

NO MORE GURU

Version 2.0 of **GOMF** (still one of our favorite names, standing for the very New Yorky 'Get Outta My Face') has been released by *Hypertek/Silicon Springs*. It intercepts errors and restores your Amiga's equilibrium before the dreaded Guru can make an appearance. It automatically configures to 68000, 68010, and 68020. 120-1140 Austin Ave., Coquitlam, BC Canada V3K 3P5. 604-939-8235.

SCREEN YOUR SCREEN

Mark glommed onto our **dB60** review unit and attached it to his monitor for 'evaluation'. Yeah, right. Like anyone else is going to get a chance at it. The thing is a very fine mesh screen designed to reduce interlace flicker. It also cuts way down on glare as well as any radiation and it has a ground wire to eliminate static. \$129 from *Brookfield Communications*, 3820 Griffith View Dr., Los Angeles, CA 90039. 213-668-0030.

ACCOUNTING

OXXI has come out with **Nimbus**, a simple-to-use record keeping package with the small businesses that don't need the power of the more elaborate accounting packages. One disk has general ledger, AR/AP, and invoicing. \$149. PO Box 4000, Fullerton, CA 92634. 714-999-6710.





... continued

MISCELLANEOUS

HELP! HELP!

Origin Systems has published **Quest for Clues**, a book of clues and solutions for adventure gamers. It's edited by Shay Addams, who should know what

he's talking about since he edits *Questbusters*, the magazine for adventurers. Remember - you can only use it if you're really stuck. The Adventure Police will arrest you if you use it too much. \$24.99. 136 Harvey Rd., Bldg. B, Londonderry NH 03053m 603-644-3360.

GET DRESSED, BRYCE!

Want to advertise your computer affiliation? *Tenex*, the mail-order house, has **T-shirts** sporting such witticisms as "My Commodore eats Apples for lunch". \$8.95 each. PO Box 6578, South Bend, IN 46660. 219-259-7051.



GAME NEWS

STUFF WE HAVE

The following titles have been received in our offices over the past couple of months, so we can attest that they are shipping. Check the Gallery for reviews of the hottest titles we've gotten lately.

C64

Accolade: *Plasmatron*, Sci-fi arcade adventure; *The Train*, WWII scenario.

Data East: *Kid Niki*, Coin-op ninja conversion; *Q-Bert*, The classic; *TNK III*, Tank warfare.

Electronic Arts: *Battles of the Civil War*, Wargaming.

Free Spirit: *Torchbearer*, Adventure.

Mastertronic: 3 on 1, Pub games; *Feud*, Battle of spells between magicians; *Prowler*, Alien battles; *Storm*, Swords & Sorcery; *Water Polo*

MicroIllusions: *BlackJack Academy*

Mindscape: *Mutants*, Arcade shoot-em-up.

Software Simulations: *Football*, Pigskin simulation; *Pure Stat Baseball*, College Basketball.

Spectrum Holobyte: *Zig Zag*, Space arcade game.

Spinnaker: *Ace 2*, Flight game.

Thunder Mountain: *Felony*, Adventure; *Winter Challenge*, Sports simulations.

AMIGA

Anco: *Grid Start*, Formula 1 racing; *HR35*; *Karting Grand Prix*, Racing simulation; *Las Vegas*, Gambling in Glitzville.

Artworx: *Centerfold Squares*, Revealing adult game.

Microdeal: *Slaygon*, Arcade adventure.

Mindscape: *MISL Soccer*, Soccer simulation.

STUFF WE DON'T

These are games we've received press releases about over the past two months, but we haven't seen them yet as of presstime. Many (of them) should be available by the time you read this. If we there is an announced release date, we've printed it.

C64

Artworx: *Magic Madness*, Arcade with a magic theme.

Box Office: *Alf*, Based on the TV show.

Cosmi: *Navcom 6*, Warships in the Gulf; *Grand Slam Baseball*, Features Steve Garvey & Jose Canseco; *The President is Missing*, Terrorists kidnap the President.

Digitrek: *Paranoia Complex*; *The Big Deal*, Floyd the Droid revisited - restaurant scenario.

Electronic Arts: *Deathlord*, F/RPG.

Firebird: *The Fourth Protocol*, Based on Frederick Forsyth's thriller; *The Cave of Time*, British import; *Fantastic Animals*, British import; *Creative Contraptions*, British import; *Road Rally*, British import; *Sherlock Holmes*, British import.

Free Spirit: *Eye of the Inca*, Four text adventures; *Revenge of the Moon Goddess*, Four text adventures; *Three Hours to Live*, SciFi text adventures; *Sex Vixens from Space*, Adult text adventure; *Bite of the Sorority Vampires*, Adult text adventure; *Hatchet Honey-moon*, Adult text adventure; *Monster Power*, Monster truck arcade game; *Strategic Playground Football*, Informal football; *Universal Robots*, Robot manufacturing game.

Infocom: *Lane Mastodon*, 3/88, 1930's pulp spoof; *Gamma Force*, Superheroes; *Zorkquest*, Fantasy adventure.

Mastertronic: *Speed King*, Motorcycle racing; *Jonah Barrington's Squash*, Squash simulation; *Rasterscan*, Animated adventure; *Captain Zapp*, Arcade; *Energy Warrior*, Shoot-em-up; *Pro-Golf*, 18-hole course; *Shogun*, Based on James Clavell's mega-hit; *Slugger*, Baseball simulation; *Knight Games*, Medieval English tournament games.

Scorpion: *Alien Destruction Set*, 5/88, Space shoot-em-up; *Mandroid*, 5/88, Cyborg arcade game.

SSI: *Advanced Dungeons & Dragons*, Various titles in development.

Virgin: *Monopoly*, The classic.

AMIGA

Brown Wagh: *Stellar Conflict*, Space conquest.

Cinemaware: *Rocket Ranger*, Tribute to movie serials; *Three Stooges*, Nyuk, nyuk.

Digitrek: *Vampire's Empire*, 4/88, Arcade adventure with contest; *Thunderboy*, 3/88; *Paranoia Complex Action/Adventure* dragon fighting; *The Big Deal*, Floyd the Droid returns.

Mastertronic: *Ninja Mission*, Martial arts arcade fare; *Outcast*, Battle flight simulator.

North Star: *Lunar Mission*, Fly to the moon.

Scorpion: *Black Shadow*, 5/88, Destroy an asteroid headed for Earth.

Virgin: *Monopoly*, The classic



VIDEO TITLING ON THE AMIGA

by Harv Laser

One of the most obvious video applications for the Amiga, and one that both amateurs and professionals share an interest in, is video titling. In this INFO compendium, Harv Laser takes a look at three Amiga video titling programs, and a color font editor.

CALLIGRAPHER \$100

Interactive Softworks

57 Post St. #811

San Francisco CA 94104



Calligrapher is, quite simply, *Deluxe Paint* for fonts, and more.

It's baffling when you first run *Calligrapher*--there are no fewer than six screens to use. You can read the manual and follow the excellent tutorials, but it still seems confusing. This is a big and complex program.

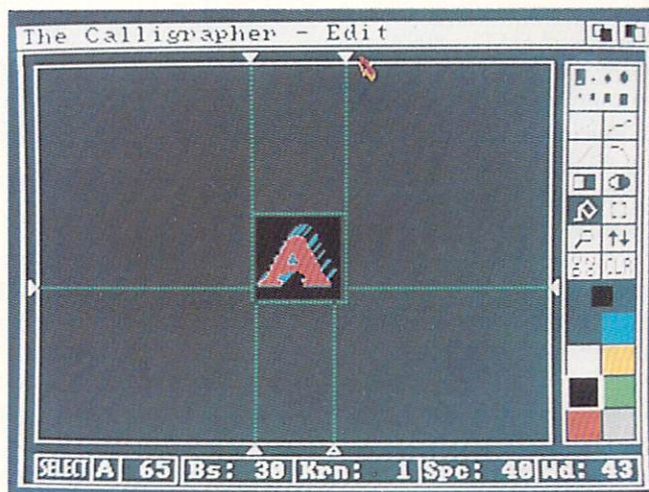
I played with *Calligrapher* steadily for a whole night, editing fonts and creating a new one. At the end of the night, it still seemed pretty fuzzy, but when I woke up the next day, it had all jelled: just think of it as *DPaint* for fonts! When I tried using it again *CLICK* it all made sense, just as though I was using *DPaint*.*

Calligrapher will create or edit a normal Amiga font or it will let you establish or edit a *ColorFont* - an extension to the Amiga's font system that allows fonts in up to 16 colors plus patterns such as brick, metallic, wood, or multiple colors. You can even clip a piece of an IFF picture and map it onto a font. *ColorFonts* has been registered with Commodore-Amiga as a new font standard.

Included with *Calligrapher* is a wedge-type program called *ColorText* that lets many other Amiga applications use these *ColorFonts*.

There are six screens in *Calligrapher*, each 320 x 200 (low resolution). The screens can be shuffled with function keys or mouse-menus. Nice touch--I found myself using both.

The letter 'A' gets a face lift with the help of Calligrapher.



FONT is the main screen. It has 2 major divisions. The 'test' area is where the font currently being worked on can be tested by just whapping away at a few keys, and seeing the results instantly. You can load in many fonts at once and switch between them. The

font screen also has menu options to make the test area full size, switch screen resolutions, and if required, be borderless. That makes it pretty handy all by itself for "instant" video titling applications.

The *SELECT* screen is where you choose which character is to be edited. When you get into the fancy business, this screen is used to select ranges of characters on which special effects like "resize" will act.

The *EDIT* screen is the one that looks like *DPaint* with familiar drawing tool icons down the right side. The crosshairs here are actually 'bounding lines' and there are three sets of them. The bottom part of an 'E' sits on the baseline below which dangle the descender parts of the lower case g, y, j, p, q or y. Another set of lines defines a

bounding box for the character--vertical lines which touch its left and right sides. More lines mark the spacing in front of and behind the character. Across the bottom are windows that show you what character you are editing, and what the spacing values are.

Amenities here include the coordinates (which help when trying to get the proportions of an individual character correct) and the brush mode.

* If you're struggling to learn *Calligrapher* and inspiration eludes you, RGB Video Creations (2574 PGA Blvd., Suite 104, Palm Beach Gardens FL 33410) now offers a version of *Deluxe Help* for *Calligrapher*.



... Video Titling continued

This is a full "brush cut/paste-save/load" feature you have come to know and love in *DPaint*. It's invaluable in *Calligrapher*. With this feature, once you make a nice serif or flourish on, for example, the stem of an 'I', you can cut the serif out, and stamp it out on the 'T', 'P' and so on, to guarantee consistency throughout the font.

You resize or slant or underline a font on the *EFFECTS* screen. When the effect has been adjusted just the way you want it, punch 'DO IT' and that change will apply to all characters in the selected range. Good stuff!

Lastly, a *PATTERN* screen gives you the ability to apply textures to your fonts - many elaborate examples are included on *Calligrapher's* disk, as are a bunch of *Colorfonts*.

I suggest that you follow the tutorials in the manual. They are excellent teaching tools.

Editing an existing font is easy. Just LOAD FONT and *poof* you are now editing that font. I have some converted Macintosh fonts and although they work in *Dpaint* and *Notepad*, they didn't work in any other application. I just loaded the fonts into *Calligrapher*, saved them back out, and Voila! the fonts began working in programs where they wouldn't work before.

FontEd from Commodore (shipped on the 1.2 "Extras" disk) wouldn't even recognize the converted Mac fonts, and since most of them were above *FontEd's* 32 pixel limit, there was little hope of using them until *Calligrapher* came across my desk.

Creating a font looks easy, and essentially is. But concocting a pleasing font design is a non-trivial process. *Calligrapher* will not make you a great typography artist overnight, but if you are one, or even a budding one, it gives you all the tools you could ask for. There's no program for any other brand of computer quite like *Calligrapher*.

VIDEOTITLER \$149.95
512K required for low resolution 1.0 - 2.0
Megabytes of RAM for high resolution
Aegis Development
2115 Pico Blvd.,
Santa Monica CA 90405



The pictures tell the story. *VideoTitrer* can produce gorgeous screens. But getting there might not be half the fun. To get really good output and use the ad-



VideoTitrer helps us prove that **INFO** is "stronger than dirt".

vanced features of this program you need a lot of RAM. Since *VideoTitrer* loads many bits and pieces when run and while using it, a hard drive would be a good idea too, but you can still squeak by with floppies.

VideoTitrer will operate in any of the four standard modes of Amiga screen resolution: low, medium, low-interlace (Aegis calls this mode "video resolution") and high-interlace, each higher mode requiring more RAM than the one below it.

Although *VideoTitrer* will not allow importing HAM-IFF pictures, (see the "Butcher & Pixmate" article in *INFO* #18 for a description of programs that can convert HAM screens to non-HAM) it does have a very flexible palette scheme with a HAM-like ad-

juster so that any palette color can be changed to any of 4096 possible.

Teaching yourself *VideoTitrer* might take a while: the manual is short on examples and there are many keyboard commands which are not duplicated on the pull down menus, so I found myself jumping between mouse and keys a lot when trying to achieve certain effects. After about three hours of experimentation and head scratching I could finally duplicate an effect pictured on *VideoTitrer's* package. More helpful examples would be welcomed, as would a "lay flat" manual.

Any regular Workbench font of any size can be used for titling - so can color fonts created with *Calligrapher*. Twenty pretty pre-built text styles offer a wide array of font effects, such as "3D block" and "embossed", and by invoking the special "expert mode" (can you say "Abracadabra"?), any of those twenty styles can be completely customized and saved. This takes a lot of experimentation but some exquisite styles can be devised if you persevere.

Polyfonts are a new idea pioneered in this program. Polyfonts are non-standard Amiga fonts, valid only in *VideoTitrer*, which can be sized, stretched, kerned (adjust spacing between letters) and twisted dynamically on screen to achieve some extraordinary results. Unfortunately, only 5 Polyfonts are provided with *VideoTitrer*, although Aegis told me they will distribute a template so that *Draw Plus* owners can create new Polyfonts. That sounds like a lot of work. For \$150, I think more Polyfonts should be included.

VideoTitrer also comes packaged with *VideoSeg*, a separate slideshow presentation program which can mix together *VideoTitrer* screens and *ANIM* format animations, including many eye-

catching screen transition effects. Genlock hardware is supported, of course.

My overall impressions of *VideoTitrer* are mixed: The output is simply fantastic but there's a steep learning curve and the manual leaves much to be desired. If possible, try before you buy.

TV*TEXT \$99.95
512K, one disk drive required
Zuma Group / Brown-Wagh
16795 Lark Ave. #210
Los Gatos, CA 95030



This is a program I tried very hard to like, but its built-in restrictions kept thwarting our potential romance.

While not as ambitious as *VideoTitrer*, *TV*TEXT* has some satisfying effects to offer at a lower price. Ease of use is probably *TV*TEXT*'s best feature. Unlike *VideoTitrer*'s plethora of keyboard commands, everything *TV*TEXT* does to pictures and fonts can be done from its Intuition menus. You may use any Amiga font of any size, and apply effects to the font to create very appealing titling with drop and cast shadows, embossed or engraved appearance, outlined, extruded, italicized, underlined, and strobed lettering. An easy-to-use, gadget-laden "preferences" screen gives you complete authority over these effects.

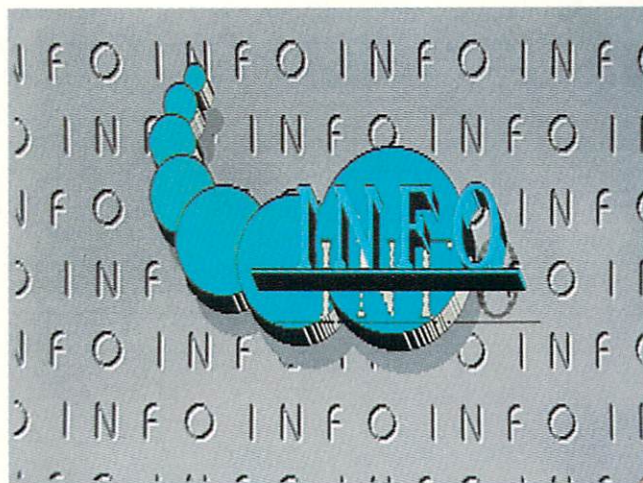
Titling can be applied atop other Amiga screens used for backgrounds, or behind other screens used as overlays.

Primitive design shapes, such as lines, circles and boxes are at your disposal. These shapes can have the same embellishments as the fonts. But there are limitations: only two modes of resolution are available: medium (640x200) or high (640x400), and overscan can be used in either mode. However, you are strictly confined to a palette of 8 colors

(out of a possible 4096) no matter which mode you are in.

Although you can use virtually any font type or size, you're restricted to a "library" of 12 font names at a time. This is a real bother. My hard drive has over 40 font sub-directories on it, but *TV*TEXT* would only permit me a dozen active fonts, unless I wanted to break up my main font directory into smaller pieces. *TV*TEXT*'s manual referred to a "font librarian" program to create these groupings. Unfortunately, that program is not included with *TV*TEXT*; you'd have to buy a disk of *Zuma Fonts* to get it. Why not just use an intelligent directory requestor instead of this "font library" scheme?

Although I could load *Calligrapher's* ColorFonts into *TV*TEXT* and they



*A nice font and TV*TEXT give this screen an Art Deco look.*

looked okay when creating a new line of text, when I sent that text to the main screen the colors were messed up and some random junk appeared near some of the characters. Any 32-color pictures you import into *TV*TEXT* to use as background or overlay will also be remapped down to 8 colors.

If you can do your work within *TV*TEXT*'s limits, you'll find the program easy to learn and use, and capable of many pretty effects.

TV*SHOW \$99.95
One meg of RAM recommended
Zuma Group / Brown-Wagh
16795 Lark Ave. #210
Los Gatos, CA 95030



Once you've sweated yourself into a frenzy creating or collecting fonts, titles, and pictures, you'll probably want to put some of them together into a slideshow for you and your friends, or even for "real" business use. There are some public domain programs to do this, but they all have weaknesses and force you to use a text editor and write scripts and do a lot of experimentation. Many people find it tedious to write scripts from scratch in a text editor. After all, that's what computers are for, right? Now there's an easier way:

*TV*SHOW* is a wonderful program for combining Amiga screens and brushes that have been created with other programs into very polished presentations, and it's a snap to learn to use. Without lifting your hand from your mouse (*TV*SHOW* isn't one of those programs that can't make up its mind about mouse versus keyboard usage), you can build a script and combine an unlimited number of screens of any resolution or format, along with brushes and Amiga speech.

You can design your shows to react to viewer input from the function keys and mouse or build them to run unattended and even loop endlessly. Great for a store-front display.

Over four dozen "special effects" for screen transitions are at your command: all kinds of wipes, dissolves, rolls, reveals, fades - and these can be sequenced in any order you like, and take place extremely slowly or very fast. You can preview all or parts of your script any time during the creation pro-



... Video Titling continued

cess, or read in old scripts and modify them, or merge them with new scripts. We're talking friendly and flexible here, folks.

All of these script-building functions are handled from within a logically-designed Intuition interface and *TV*SHOW* will even teach you how to use it with a supplied script/show with



TV*Show effects menu

voice narration which you can take apart and examine, to see how each feature works - a really thoughtful touch. The manual isn't illustrated, except for some charts, but in *TV*SHOW*'s case, it doesn't matter. There aren't any "hidden" keyboard commands either. It's all right there on the screen.

A freely distributable *PLAYER* is included, so you can share your shows with friends. There is also a handy utility to move scripts and their required pieces from one disk to another.

For sophisticated presentations using many hi-res or HAM screens, over a meg of RAM is recommended. *TV*SHOW* works fine from a hard drive too, and supports overscan, extra halfbrite, NTSC or PAL standards, and genlocks.

Although it can't accomodate *ANIM* files or sampled sounds, for what it does and the ease with which it does it, *TV*SHOW* is a joy to use.

PRO VIDEO CGI \$199.95
Pro Video Accessory disks:
Bulletin Font Disk \$34.95
Font Library #1 & #2 \$99.95 each
Future Font Disk \$34.95
Hi-Res Fonts \$54.95
PVS Publishing
3800 Botticelli, Suite 40
Lake Oswego OR 97035



"Set aside your Amiga's mouse and its Workbench disk", says the manual for *Pro Video CGI*, "in order to utilize the graphics and memory of the Amiga to its fullest, it's necessary to by-pass the popular Workbench and mouse operating system." *Pro Video CGI* loads into the Amiga, operates strictly in the high-res mode, and takes over just about every available byte of CHIP memory. Up to 100 screens can reside in memory at once. It's entirely keyboard-driven.

Unlike the other programs described in this article, which make use of Intuition, *Pro Video CGI* is geared towards the "video professional" who needs an industrial-strength character generator

and doesn't want to spend tens of thousands of dollars for it. With Amiga's video output capabilities, it's an inexpensive alternative to specialized hardware.

No doubt you've seen local cable television channels with cycling "bill-board" screens of announcements: weather, sports, news and advertising. *Pro Video CGI* is perfectly suited to such uses. The effects available in *Pro Video CGI* would catalog like a shopping list of video effects: fonts, underline, shadows, color, grid, background, auto-cycle, flash, wipe, page, sequence, rolls, pulls, reveals, wipes, checkerboards, graphics character generation, and on and on.

For the video professional who needs this kind of power, there's really no other Amiga program like *Pro Video CGI* - this one is definitely not a toy. A video production house could save megamoney by purchasing Amigas and using *Pro Video CGI* instead of buying expensive character-generator equipment.

As I write this in late February 1988, PVS Publishing is close to releasing *Pro Video Plus*, which will be a completely new program, not an upgrade of *Pro Video CGI*, and will sell for around \$300.00. (Registered CG1 users will get a 50% discount.) Although I could only look at a demo version, *Pro Video Plus* promises to be a true powerhouse for video effects generation - its preview literature mentions such goodies as "text and graphic backgrounds from IFF paint and digitized images, 90 real-time page transitions, 2600 pages possible" and more. Look for a more complete write-up of *Pro Video Plus* in these pages at a later date.

TV GRAPHICS v1.1
George Bailey
6474 Highway 11
Deleon Springs FL 32028

George Bailey publishes shareware disks full of gorgeous background screens for use in Amiga video production programs. The disk I sampled was filled with screensfull of valentine hearts, palm trees, mountains, chrome bars, and other beautiful designs. Ten dollars sent to the above address will get you an upgraded version 1.2 with almost 40 different graphic files plus new product announcements. The contents of these disks are freely distributable. Look for these on BBSs and commercial networks, such as People/Link.



PUMPING PIXELS

by Oran Sands III

The real world: here, harsh realities, disappointments and hassles abound. Now take one home computer and throw it into the midst of the turmoil of the everyday, get-the-job-done, world. Can this lowly "game machine" measure up? Will our underdog survive in a world ruled by initialed machines served by a jealous priesthood?

My personal sector of reality involves video production for a large metropolitan hospital. Educational and training videotapes are the usual product of my medium-sized studio. Non-broadcast users of television such as myself comprise over 90% of the television professionals working today, and we all have the same problem/blessing. While broadcast stations spend big money and have extremely short deadlines, we on the other hand have long deadlines but little or no money. This shortage of funds helped me narrow my search for the ideal inexpensive video workstation.

REAL-WORLD SOLUTION

With the typical dedicated television graphics/paint system costing at least \$12,000 and as much as \$100,000, I thought that such capabilities were beyond my grasp. My only choice was to rent these devices (at \$350 an hour) or to do without. Clients hate the first and I wasn't too keen on the last. Mired in depression, I picked up a newspaper and read an ad for an invite-only demonstration of the then-new Commodore Amiga. I immediately grabbed the phone and wangled an invitation. Later, seated in front of one of 10 Amigas, I was drawing pictures to my heart's content using a program called *Graphicraft*. Two hours and many demos later I asked the

price and was pleasantly surprised. After a meager \$2,000 changed hands I returned to the studio, the proud owner of a new Amiga A1000 system.

IN THE VIDEO STUDIO

The inclusion of the Amiga into my daily routine of scripting, shooting, and producing programs took place much quicker than I had imagined. Learning a new operating system was simpler than expected. Intuition, the resident operating system, was really intuitive! The programs that took advantage of it were equally easy to learn. For the first month or so I cut my teeth on *Deluxe Paint*, *Aegis Images*, *Textcraft* and *Aegis Animator*. Not long after, I tapped into the local user group (*ACE, the Amiga Computer Enthusiasts*) and their information, experience and public domain programs certainly added to the Amiga's advantages. The support of my local users group was and has been invaluable.

All that was a little over a year and a half ago. Since then, preparing artwork for clients has become a pleasure. In fact, I enjoy watching the client's face as I fire up *Deluxe Paint* and in a few moments produce a quick color sketch of what he was talking about only minutes before. And this ability to quickly render graphics images has had an added side benefit: improved client-producer communication. All too often

the client believes he's communicated his desires with unparalleled exactness, and the producer is quite certain he's understood what the client said. But as the old saying goes, "I know you think you know what I said but do you realize that what I said was not what I meant?". Now artwork and graphics decisions can be arrived at jointly because the Amiga allows for instantaneous changes. The client can see for himself what colors are available and determine the direction the artwork will take. And while the artwork is being roughed out he can participate. I say "Like that?" and the client responds "Yeah, but bluer and with no bulges". So I make it bluer and smooth and we move on to other things. And if he changes his mind later ("Maybe greener?"), it is very little problem to change it.

Artwork produced by any method can be time-consuming but the ability to update, change, or remove parts of the artwork is invaluable to anyone on a short deadline or small budget. If the artwork had been produced using traditional tools and methods, a client's request to change the color would've meant a complete re-do of the graphic. Costly and time-intensive!

CREATING FANTASY/REALITY

Let's fantasize for a moment. Let's take the client's logo, rotate it, move it, let it metamorphose into the client's product, all while dancing girls kick themselves into a frenzy in the background. The Amiga is up to the task.

Perhaps more realistically, at least in my real-world job, I can now demonstrate the movement of a catheter within an artery, and once inside the heart chamber show the inflation of the balloon at the catheter's tip. Using the animation capabilities of the Amiga I've simulated blood flowing through the heart, bones mending and knitting, fingers flexing, lungs inflating, and more. Easy animation is perhaps the most



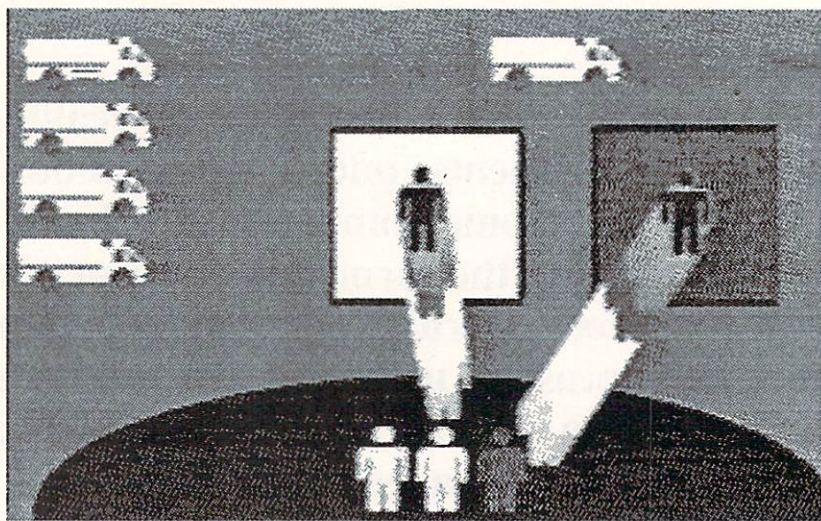
... Pumping Pixels continued

amazing part of the Amiga's repertoire. The simplicity with which the Amiga can move graphics around on the screen is unparalleled by any other computer.

One small confession: I'm no Picasso. I have no formal art training other than drawing doggies in the 4th grade. Using the Amiga to produce all these graphics might be simple for an artist, but at times I feel as if I'm in over my head. Usually I just don't know where to start. So I run to the library and check out a book filled with drawings of what I need. I could just try to redraw the picture but that might take numerous tries and as many errors. Using the *DiGiView* video digitizer from NewTek, it's child's play to capture that image on my screen and have it in my paint program within minutes. This ability to digitize video images shrinks my graphics production time considerably. Submitted artwork can easily be converted into an Amiga-compatible graphic for inclusion into other Amiga-produced work. Anything that speeds up production but doesn't sacrifice quality is welcome in any studio setting.

VERSATILITY

Comparable television graphics systems are dedicated units. They're hardware-implemented paint or animation systems that do nothing else. The only problem with this is that each device does its own thing and no more. The Amiga is a computer that allows for painting, animating, digitizing and anything else that developers might dream up between now and tomorrow. It's a very talented lump of clay waiting to be shaped. Its very nature can change with a simple program load. With its multitasking features I can even do several jobs at the same time. And if all this video action wasn't enough, let's remember it's still your basic number and word cruncher. Paperwork of various sorts still occupies 50% of my time. This leaves little time for the creative process. Scriptwriting is very time consuming and wordprocessors drastically reduce the revision cycle. And budgeting with a spreadsheet program helps to more accurately predict production



Amiga animated sequence from hospital training video.

costs. Databases allow me to keep track of personnel, stock footage, expenses etc. Telecommunications allow the transfer of files, and with the IFF graphics file standard for the Amiga I can share my pictures with other studios. More word processors and spreadsheets and databases are available than ever before, and many have begun to incorporate the graphics features as well.

A SOUND INVESTMENT

Working with video images isn't the only video production virtue of the Amiga. The built-in four voice stereo synthesizer and corresponding music composition programs such as *Sonix*, *Music X* and *Deluxe Music* allow you to provide a soundtrack for the work you've created. You can compose your own musical score and even create your own instruments. Control of combo synthesizers is easily accomplished thru a MIDI interface. In fact, many Amigas have found homes in sound studios as the controlling computer. Few video programs are made without some musical accompaniment these days, if only during the opening and closing titles and credits. Getting advanced music capabilities with my video workstation was an unexpected bonus.

CHARACTERS GENERATION

The largest use of graphics within any studio is character generation. This is the simple ability to place text on or over a video screen. But to do it well costs money. If you want moving text in different sizes, colors, and typesets, with shadows or edging, you're going to pay for it: start at \$5,000 and work your way up to \$100,000. The latter devices are mostly graphic workstations, and are built in small quantities for the networks and larger television stations. With the Amiga I spent only \$200 and bought Pro Video's *CGI* program. It lets the Amiga emulate character generators costing ten times as much! And I've been assured that this is only the beginning of what's possible. Cost savings like these make my boss very happy! Purchase of this one program has justified the expense of the entire Amiga system in our studios.

IN SLIDES

Most in-house production studios don't just produce television shows. A large number of us are multi-media producers as well. My facility produces over 40,000 35mm slides a year. After using a *Polaroid Palette* film recorder to make

slides with other computers I suspected it would also work with the Amiga. It didn't take long for the necessary hardware and software interface to appear. The Polaroid Palette film recorder accepts 35mm color film or Polaroid print film and the Liquid Light *Imprint!* software will drive the film recorder to photograph any type of Amiga picture, in any resolution or mode, hold and modify and overscan included. It will even produce color negative separations to allow printing my images professionally. For quick hardcopy of an image I can always get a Polaroid color print or use a color printer. If you can't take the Amiga itself to a meeting, these alternatives will often suffice.

PROBLEMS, TOO

Obviously I'm pleased as punch with the Amiga. But there were growing pains as we got to know each other. It became immediately apparent that two drives were necessary. And as we began to use more sophisticated programs the need for more than 512K of RAM became urgent. Although 1.5 Megabytes of RAM would usually be sufficient I've found that 2.5 Megabytes is just about a perfect size. The computer becomes a multitasking wonder when equipped this way.

The NTSC color composite output was one of the main reasons I bought the machine. Sadly, I found out that it wasn't really all that precise in its rendering of colors. That proved to be easily correctable through an inexpensive and simple hardware modification, though.* Hard drives weren't easily available or affordable until recently. While this doesn't bother me, it has bothered others. Getting used to a mouse wasn't difficult but certainly different (and why are all mouse pads about 60% of the size they ought to be?).

The machine has proved to be very rugged and reliable. It's been carted all over town for demos and user group meetings and it's certainly not been ba-

bied. The disk drives are still in alignment. The lack of IBM compatibility isn't something that worries me, but it's been addressed by the A2000 Amiga *Bridgeboard* anyway, so I'd say it's a moot point. Internal expansion might have been tidier; the external modules take up desk space (so I got a bigger desk!). Ok, so I'm reaching a little here. I haven't got much to complain about, obviously. For the cost of the machine the capabilities are wonderful and simply unavailable elsewhere. Most certainly the pluses of this computer far outweigh the minuses.

ABOUT COMPATIBILITY

The biggest plus I've found is the IFF (Interchange File Format) file standard. In reality it's not a standard but a set of guidelines for creating files so different programs can use what they need of the file and ignore the rest. The flexibility offered by the interchangeable graphics file format has opened up the software market. Programs no longer have to rely on images created solely within, by, and for themselves. While owners of other computers spend their spare time converting images from one "standard" to another, we're already up and running! Amiga graphics software has leapfrogged the competition at an unbelievable rate. In the period of one and a half years we've seen the release of programs that have defined the state of the art in painting, computer 3-D image generation, music composition, ray-tracing, digitizing and animation. Programs for other computers simply pale by comparison. You can always buy a board or three for that other computer to get most of the same features, resolutions, etc. Or you can get one machine: The Amiga.

The biggest problem I have found with the Amiga is that it doesn't have the "correct" initials in its name. Actually buying an Amiga has been the hardest part of owning one. While the Established Priesthood won't allow any other computers to be purchased than

their favorite, most of us in corporate settings have found ways around them. I bought a "color graphics generation system". The local army base bought several "personal audio/visual instruction systems" while the local auto electronics firm purchased "video design terminals". Even NASA has bought "graphics sub-systems" in order to slide some past the boys upstairs who demand the initials IBM or: anything called a "computer".

THE WRAP-UP

The harsh realities of my world dictate that performance is paramount. A video producer cannot tolerate delays and the added expense of outside services and "re-dos". If this performance can be obtained inexpensively, reliably and with no cost to the flexibility of the system, then we have a winner. In virtually every way the Amiga has earned its place in my business. Since I purchased my initial Amiga system the price has dropped and the machines have been redesigned to be even more flexible. The Amiga may soon be a common sight in the typical non-broadcast studio.

The term "Desktop Video" has been used to describe the use of the Amiga in this way. In my opinion the Amiga is more than an amateur's tool. I believe it qualifies as a full-fledged video workstation--an all-in-one device to satisfy your video graphics needs. I read a video article recently that suggested that a *Mac II* might be in my future. Well, it's a day late and several dollars short, because there's an Amiga in my present!

ABOUT THE AUTHOR:

Oran Sands is the Educational Media Specialist for a Major Metropolitan Hospital in Indiana, which means he gets to play with lots of video equipment and get paid for it. He is by acclamation the Amiga community's premiere digitizer of nudes, cars, nudes, motorcycles, and nudes.



* See Oran's article on improving the A1000's video output (by cutting just one wire!) in volume #2, issue #7 of *Amazing Computing*.

THE MAKING OF A WINNING

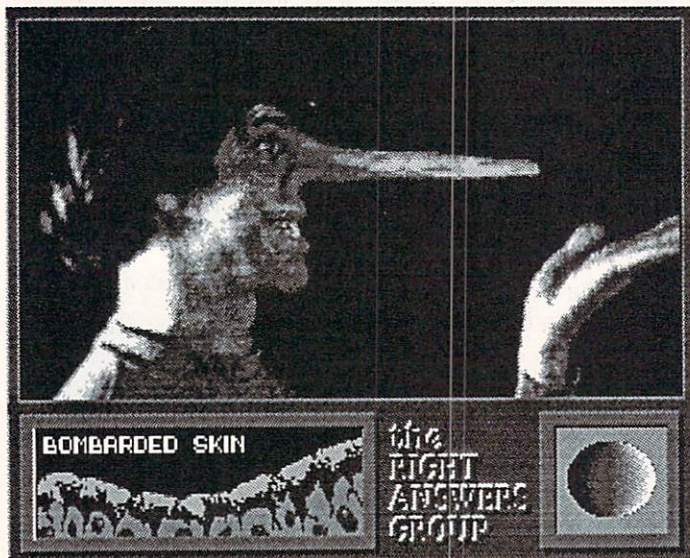
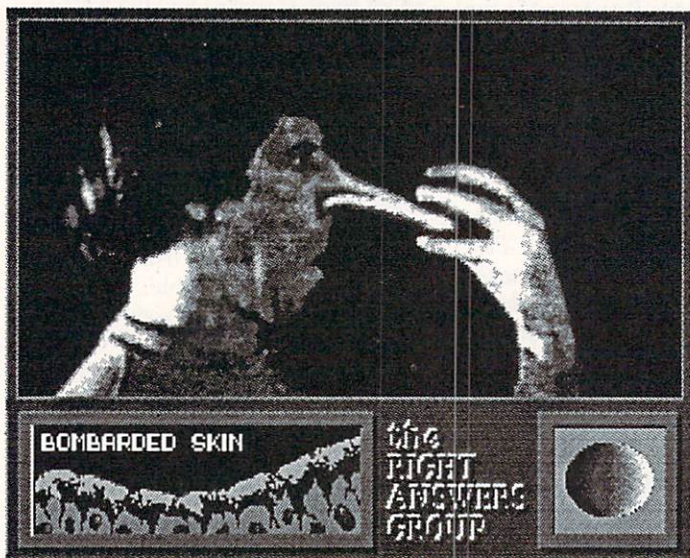
by Joel Hagan

In an effort to stimulate the development of some great graphic demo programs, the Bay Area BADGE users group sponsored the *Zeroth BADGE Killer Demo Contest* last Fall. INFO is proud to have been the only Commodore Amiga magazine to have sponsored that contest. Prizes were awarded in many categories, but the winner of the Grand Prize was Joel Hagan with a humorous entry titled simply "RGB". Here is his story of The Making of RGB.

INSPIRATION

There is something poetic in the vote of confidence given my "RGB" computer film by the judges of the recent BADGE Killer Demo Contest. In awarding it Grand Prize, they have vindicated millions of man-hours earnestly invested, but seldom appreciated. I am one of thousands of people who spent his formative years hunched over a wash basin, making wacky faces in the mirror. We took it seriously. You don't achieve the coveted "inverted lip", the "fish eye", nor the "Chester walk" overnight. These are efforts of dedication. Our parents would have willingly sold the Rambler and mortgaged the family home if we would have put that same dedication into mastering the french horn, learning about Paraguay or diagramming sentences.

Somewhere along the line, most of us abandoned the craft of the silly face. I have remained involved in the discipline, finding the "long nose" an effective ice breaker at parties, and the "bat face" a good way to strike up interesting conversations with Japanese tourists in our national parks. Naturally, I viewed the advent of the Amiga with enthusiasm. I realized that with the Amiga, *Deluxe Paint II*, *Digi-View*, and *The Director*, I had in my hands at last the tools of my grade-school dreams.



DEMO

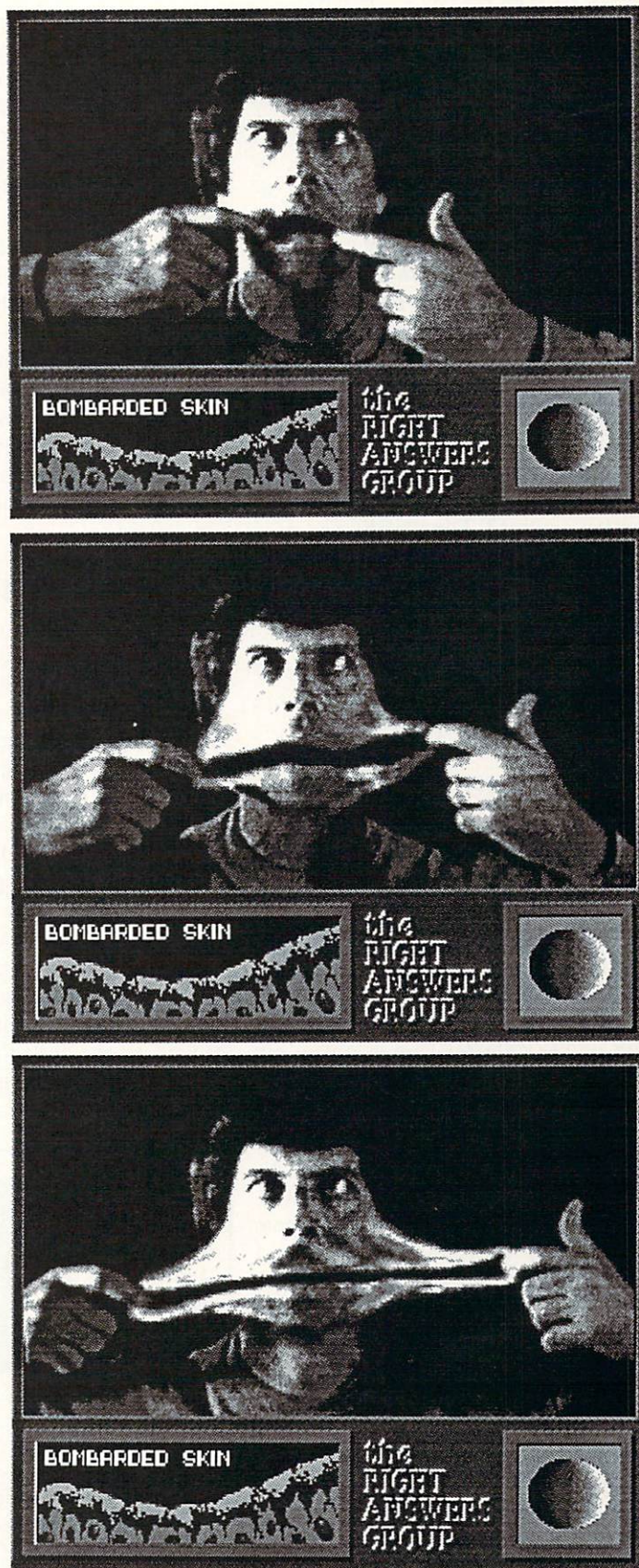
TECHNIQUE

The RGB demo began with a series of images of my face digitized from VHS tape. I went through the motions of mouth stretching and nose pulling in front of my camera, then used *Digi-View* to capture IFF images from that tape. I seem to get the cleanest image by running the VCR through a portable television and pointing my black and white camera at that screen. The camera feeds into a switcher which allows me to focus using the Amiga monitor's "composite" setting. I then switch the camera to the digitizer, and the monitor to "RGB". (Note: in RGB mode, it is a wise precaution to view the monitor through a piece of smoked glass... see demo)

A VCR with a good freeze frame allows me to step through the tape a frame at a time and capture an image at any interval I desire. An interval of five frames on the tape will still give fairly smooth results when animated. I often digitize in black and white as an esthetic choice. I like the look of black and white images set against elements of color, and often it gives an added "documentary" look to an animation.

Another advantage to black and white is the ease with which *Deluxe Paint* can manipulate the image using its "shade" and "blend" tools. These tools allow quick and sophisticated retouch and compositing of photographic images. First, however, the shuffled grey scale of the *Digi-View* palette must be remapped in *Deluxe Paint* into a sequential grey scale stepping smoothly down from black to white. In this form, with the full sixteen levels selected as a range, the image can be chopped up as brushes, reassembled in new ways, and all edges and cut lines smoothed together with the "blend" tool. The "blend" and "shade" tools of *DPaint* also make excellent drawing modes, producing smoothly contoured lines and shapes. Just the thing for painting long noses or frog lips.

Digi-View and *Deluxe Paint II* gave me the images I needed. The tool which allowed me to put the pieces together and create a real "computer film" was *The Director*. This software has only been commercially available since Christmas, but many people were already familiar with it through the "Probe Sequence", done with *The Director* for a PBS documentary in Los Angeles. *The Director* is the only software that gives me the flexibility and graphic control I always dreamed about for the Amiga. It is not just a page flipper nor an effects generator; it is actually a graphics display and animation language. For anyone using the Amiga for graphics, it is a real breakthrough. Prior to *The Director*, there was nothing available which gave me much creative freedom



... Winning Demo continued

while still giving me access to the full power of the Amiga. There were interesting animation packages, but they limited me to a few colors, or wouldn't generate text, wouldn't page flip, or wouldn't let me do several things simultaneously. With *The Director*, I can do just about anything I want.

In the RGB demo, I am using *The Director* at a fairly simple level. I haven't really scratched the surface yet of what this package can do. *The Director's* vocabulary is much like BASIC with GOSUB/RETURN, FOR/NEXT loops, IF/ELSE/ENDIF conditionals and so on. There are over eighty commands in the vocabulary, most of which I have not yet explored. Fortunately, one need not master the entire manual to do powerful things with the program. In fact, the earlier "Probe Sequence" was written using only about ten commands. (For a more detailed examination of *The Director*, see the review by Oran Sands elsewhere in this issue. -Ed.)

COMPOSITION

I had the fundamental punch line of the demo with the digitized and altered images of my face, but I needed to put these images into context, I wanted to tell a story, to give the animation a beginning and an end. The "RGB radiation hazard" seemed a good vehicle. I used the text generation feature of *The Director* with a font of my own design to set up the story. I also wanted to have a colorful and active screen with things happening in many places at once, a three-ring circus effect. I drew two little "atomic" animations in *DPaint* and packed them onto one 32 color IFF screen. On another, I drew a brain, some skin cross sections, arrows and other window-dressing for the animation.

The Director allows me to pluck precise pieces of any IFF screen in memory and use the blitter to copy them to any other picture buffer at animation speeds. I can thus animate several things on the same screen at the same time without disturbing areas of that screen I want left alone. While do-

ing this I can control color cycling, sound, IFF ANIM, and other effects. I used FOR/NEXT loops to animate the portion of the screen showing the atomic fission. Each time through the loop, a series of IF/ENDIF's determined whether or not to trigger other sequences, such as the dissolve of the face, the movement of the arrows, the color cycling of "bombarded" skin, and so on.

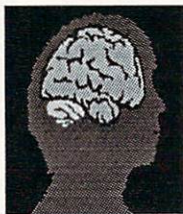
The animation rapidly fell into place. When it ran to my satisfaction, I fine tuned the timing of the various events and shipped it off to the contest as the ultimate act of one of the McCluhan generation. Transformed by the medium, indeed...

ART

With a little electronic aikido on the Amiga, I had become trans-bloody-mogrified by it. I fell asleep that night with a warm feeling that justice had been served. A couple thousand dollars worth of high-tech computer lay dormant for a few hours and in my dreams I was leaning toward the mirror in the boy's room at Thomas Alva Edison grammar school. I was moments away from achieving the "fish eye" and "gator lips" simultaneously, an astonishing breakthrough. The only concern in my life was whether I could keep it composed long enough to get back to my seat behind the new kid from Hungary.

ABOUT THE AUTHOR:

Joel Hagen, a widely-respected Amiga artist and animator, is known far and wide for his PBS animation "The Probe" and his award-winning demo "RGB". He is one of the driving forces behind The Right Answers Group. His major off-line activities include making funny faces and an interest in the search for intelligent life in the universe. He lives in California, where such things are considered perfectly normal.



... continued from page 9



QuantumLink Mail From: Mark314
Hi! Just read your latest issue and loved it. *INFO* has got to be the best Commodore/Amiga magazine by far. Your story [p. 20, *INFO* #19] about the bogus "Special Issue" of *COMPUTE!'s Gazette* finally inspired me to cancel my subscription to *C!G* and ask for a refund. I had actually bought the *Best Of Gazette* mag/disk on the newsstand and wasn't even aware that the magazine was being sent to me and charged to my subscription. Imagine!! Now, here's an idea for a brand new *Speedscript* enhancement: *Speedscript GMC* (*Gazette Magazine Canceled*). It's a template cancelling your *COMPUTE!'s Gazette* subscription! Just create a name and address file for *Speedscript GMC*, which will automatically run the letter and mail it out to *COMPUTE!* Publications, cancelling your subscription. As an option the money can be wired to *INFO* for a subscription (or am I carrying this too far?) Mark Trencher, Editor, HAUG News, Hartford Amiga Users Group, Hartford CT

No, Mark, we don't think you're carrying things too far. We think it's a great idea! So great, in fact, that we've decided to turn it into a special offer for our readers! -Mark & Benn

PeopleLink Mail From: OER199
Are Mark and Don Romero going to write another C.H.U.M.P humor magazine? Mark Keller

Boy, do you ask the right questions! Our next issue (July/August, #21) will be another infamous *INFO Summer Doldrums Issue*, complete with an all-new, all-humor C.H.U.M.P. computer magazine parody! Better subscribe now so you don't miss it! -Mark & Benn

continued on page 39 ...

NEWS AND VIEWS

AMIGADOS 1.3

We've learned a great deal about AmigaDOS 1.3, which should be available to the public about the time this issue hits the newsstands. Remember that this information is preliminary, but here's some of what you'll find:

- (1) New printer drivers that are much faster and deliver cleaner output. *Prowrite*, *Shakespeare*, and possibly some other software packages have already been shipped with the new *printer.device*, *Preferences* program, and printer drivers on them.
- (2) The new version of WorkBench works fine with the 1.2 KickStart ROMs in the A500 and A2000. But one of the new features is the ability to boot the system from an external device, such as a hard drive or recoverable RAMdisk, and to implement that feature A500/A2000 owners will have to replace their KickStart ROMs. A1000 owners will be able to get a new KickStart 1.3 disk.
- (3) Official versions of many commonly available public domain utilities. These include Matt Dillon's own PIPE: device; an official Recoverable RAMdisk (like VD0:); a CMD command for PRT: file redirection to any device; and new CLI commands like MORE, AVAIL, and XICON.
- (4) Faster disk access for hard drive users, though we haven't seen any benchmark times yet. The FFS (Fast File System) will also speed up the new Recoverable RAMdisk and 5.25" drives, though it does absolutely nothing for 3.5" floppies.
- (5) The new *Preferences* program features many new graphics options in the printer select section, which now includes a third screen. Graphics sizing is now independent from text margin settings,

and can be set in inches. There are new settings for two grayscales, halftoning, dithering, etc. *Preferences* also does away with the CLI on/off gadget (leaving the CLI always on), and gives the serial port settings their own selection screen. (See Sheldon Leemon's article for a screen shot of the serial settings screen.)

- (6) The math libraries have been upgraded to directly support the 68881 math co-processor chip.
- (7) There have been changes to many CLI commands. Some of these include: RUN has RRUN and RUNBACK built-in; DELETE will continue instead of aborting if it hits a bad file; COPY has new options like preserving a file's datestamp, and includes user-definable buffer size; INSTALL includes the option CHECK, which checks for a valid bootblock like *VCheck1.9*.
- (8) Other additions include: a software switch for the *Format* utility that will wipe an already formatted disk clean in just a couple of seconds; Charlie Heath's *Fast-Fonts* for faster screen scrolling; a

new *SPEAKER*: device for direct speech output from almost any program; an unbuffered serial AUX: device for running applications from a remote terminal;

- (9) The nicest addition to V1.2 is a CLI shell that is similar to the *Metacomco Shell*. It allows full command-line editing, command line history, user-definable RESIDENT commands, command ALIAS, and more.

The word from developers is that V1.3 is only a "moderate" revision, and the major upgrade to both KickStart and WorkBench will occur with V1.4! We'll see--they'll be discussing proposed V1.4 revisions at the Amiga Developer's Conference in a few weeks.

NEWSLETTERS

If you're into ray-traced graphics, you'll want to get Cathryn Graham's *Ray Tracing Newsletter*. Each issue comes on an Amiga disk and costs \$6 ppd. At least four issues have been published so far. PO Box 579, Sandia Park NM 87047.

Transformer software users might be surprised to find out there's a newsletter for them, too. *Transformer Talk* is \$10/year from: Suzanne Mitchell, Box 7969, Tyler TX 75811.

COMMODORE NEWS

Commodore seems to be committed to being a presence in the PC clone market. Their *Colt PC* delivers a two-speed 8088 processor, 3 slots, 640K, 2 5.25" drives, EGA graphics, and parallel, serial, and mouse ports for only \$899.95 retail. The *PC-III* has three speeds and can be configured as a 5.25" or 3.5" system. A single-drive model is \$999.95. They also have new 80286 and 80386 models close to release.

Commodore's profits were up 27% for their second fiscal quarter, which ended December 31. Profits were \$27.7 million on sales of \$281.7 million for

the quarter. That's a 4% increase in sales over the same quarter last year. Commodore reports that Amiga sales now amount to 40% of their total revenue.

After a hiatus of a year and a half, Commodore jumped back into the educational market in February. They will concentrate their efforts on selling the PC-10-III clone and the Amiga into schools and universities. They'll push the Amiga for the K-12 market, but will also support the C64 and C128. There is supposed to be advertising for the new program by the time you read this.



COMMODORE CONTINUED...

We'll see. It'll take a lot of effort on Commodore's part to convince educators that they're serious about education "this time".

It's been a long dry spell, but Commodore is once again shipping Amiga 1020 5.25" drives. They were held up for several months while the *Transformer* software was upgraded to work smoothly with AmigaDOS 1.2. (Meanwhile, a PD patch that makes it compatible has been on the networks for months, and AmigaDOS 1.3 is due out soon!) Central Point Software, whose *Disk-to-Disk* and *Dos-to-Dos* products depend rather heavily on the 1020 drive, was understandably anxious for us to let you know that Commodore was shipping them again.

The official Amiga monitor has been changed again. The new 1084 is a Magnavox monitor, and appears to be a 1902A modified for analog RGB input. It replaces the short-lived 2002, which was a replacement for the original 1080, which was probably the best of the lot. Still no word on when the long-persistence 2080 monitor will be available.

Following the lead of IBM and Apple, Commodore is working slowly but diligently to limit or even eliminate mail-order sales of Amigas. It's a tough call. Commodore needs to show their retail dealer network good support, but they need to sell lots of computers, too. And there are some places where the nearest Amiga dealer is 150 miles away...

SHORTAGES, HIGHER PRICES

The weakness of the dollar against the Japanese yen, coupled with increased demand, has resulted in higher prices and shortages for both computer memory chips and 3.5" diskettes.

The popularity of the Amiga and the Macintosh, in combination with the introduction of new IBM/PC models that use smaller disks, has caught the disk industry with its pants down. While they struggle to catch up, 6-8 week delays in diskette deliveries are not uncommon. The price on 3.5" diskettes

TIDBITS

Favorite Bloopers: In AmigaWorld's "Great Software Buyer's Guide", they repeatedly referred to music software company *Dr. T's* as *Dr. Tease*.

Nice Marketing: Atari raised the price on the 520ST by \$100 before Christmas, and sales plummeted.

Great PR Move: While suffering from a manpower and resource shortage that resulted in some of the least responsive customer service in the industry, Berkeley Softworks launched an Apple version of their *GEOS* operating system. They then assured their established base of Commodore customers that their expansion into the Apple market would have no adverse effect on their ability to support Commodore *GEOS*. Uh-huh.

Toy Computer: The February issue of *Scientific American* (p. 28) reports on the WaveWatch system, an inex-

pensive satellite-based tidal wave warning system designed by the U.S. National Oceanic and Atmospheric Administration for use by third-world countries. The \$20,000 system is better and faster than the \$1 million system that is in use in most countries now. It has a 98% accuracy rate versus 90% for the older system, and takes one minute to report a tsunami, versus 10. The computer central to the system prototype is a Commodore 64.

Pentagon Pastime: Cinemaware recently received a letter from a Pentagon staffer who informed them of the popularity among the Pentagon staff of one of their games: *S-D-I*. He asked if the folks at Cinemaware could send a few more *S-D-I* posters to decorate some walls at the Pentagon. They obliged by sending along 200 posters.

RIP: StarPoint software has given up the ghost. Gone with them are *Di-Sector* and *StarDOS*.

8-BIT SUPERBASE FOR HARD DISKS

Progressive Peripherals & Software has released the long-promised REL file version of *Superbase* for the C64/128. This version should work with almost any Commodore-compatible storage device, but was created with the *Lt. Kernal* hard drive in mind. If you're a Superbase power user and have "hit the wall" on floppy disk storage like

we did, it's great news. You'll be able to work with databases as large as 20 megabytes or even more. The 20-meg *Lt. Kernal* is available from Xetec (913-827-0685) at \$899.95 for a C64 version, \$949.95 for the C128. A 40 megger is available on special request. Call PP&S for info on *Superbase* (303-825-4144).

has also risen by at least 15% over the last few weeks.

Computer RAM chips have fared even worse. Prices have as much as tripled from some suppliers over just a few months. Japan is also limiting imports, making shortages inevitable. Many RAM expansion board suppliers have resorted to shipping bare boards, which retailers and consumers must populate themselves. Industry watchers believe the problem will only get worse before it gets better. In the meantime,

domestic RAM chipmakers are enjoying a heyday, with orders stacked to the ceiling and prices that allow them a hefty profit margin.

DISKS FOR THE BLIND

Brown Disc is making floppy disks available with a braille labelling kit. Supplied in boxes of 10 disks, they cost the same as a regular box of diskettes. For more INFO, call 303-593-1015.

VIRUS CHECK

by Mark R. Brown, Technical Editor

NEW AMIGA VIRUSES

Nothing has generated as much dialog in the Amiga community as the advent of the Amiga virus. Since the discovery of the original Amiga virus several months ago, there have been a lot of new developments. *[For the complete story of the Amiga virus to date, check out the first two INFO articles on the subject in issues #18 and #19.]*

Commodore's Virus Doctor, Bill Koester, has now documented five separate Amiga viruses, with many more rumored. Where the second virus was merely a revision of the first, the three new bugs use totally different code. The bad news is that disassembling and documenting viruses is a time-consuming job, and in the wake of a rapidly multiplying problem, Koester is falling behind in his battle to document Amiga bugs.

But the good news is that there are new tools in the battle against these bootblock viruses. Besides *VCheck1.2* [13,192 bytes], Koester has released a preliminary version of his promised generic virus checker. *VCheck1.9* [6236 bytes] checks not for known strains of Amiga viruses, but for a valid AmigaDOS bootblock on the disk. This means that it can detect bootblock viruses that do not yet even exist. (*VCheck1.2* must still be used to actually identify the SCA virus or to check for the virus in memory.) Though it doesn't implement the bootblock library lookup tables promised for the final version *VCheck2.0*, *VCheck1.9* is an important weapon in the arsenal of the Good Guys in this battle. As always, the

AmigaDOS *INSTALL* command will eliminate any bootblock virus by rewriting the bootblock of the disk with the original Amiga boot code, though it cannot restore the custom bootblocks of certain copy-protected commercial disks.

There are also several new programs from other sources which purports to detect or cure one or more of the current Amiga viruses. One, called **Virus Killer 2.0**, claims to kill all the latest viruses. Since we're not exactly sure of its origin, we declined to try it. Remember, it's chancy to try out any program claiming to check or remove viruses unless you are absolutely sure of its origin. We have checked out a program called **ViewBoot** [12,340 bytes] by Brian Meadows. *ViewBoot* lets you visually examine the boot sectors of a disk, and will report when it detects a non-standard bootblock. You can *INSTALL* a defective disk from a pull-down menu. There is also an option for viewing the area in Amiga memory where the SCA and similar viruses reside. It's a nice utility. **VirusX** [7456 bytes] is from Steve Tibbett of *DiskX* fame. It resides in a small window on the Workbench and blithely checks every disk inserted in any drive for both the SCA virus and standard bootblock code. It also gives you the option of *INSTALLing* a disk with the virus on it. It's small, it's unobtrusive, and it keeps a running count of viruses detected. Both have been placed on PeopleLink with the address or phone number of the original author attached. We've checked them out with their authors, and they seem to be okay. If you get a copy of either, make sure it is the same length as the ones we've listed here.

POSSIBILITIES

Unfortunately, the problem of diskette disease doesn't stop with bootblock viruses. Protecting against a bootblock virus is relatively simple. They inhabit a single, known place on a disk--the boot sectors--and are thus very easy to detect and cure. But there are other forms of disk disease that Amiga users haven't even experienced yet. Unfortunately, the owners of other computer systems are very familiar with these other varieties of computer disease.

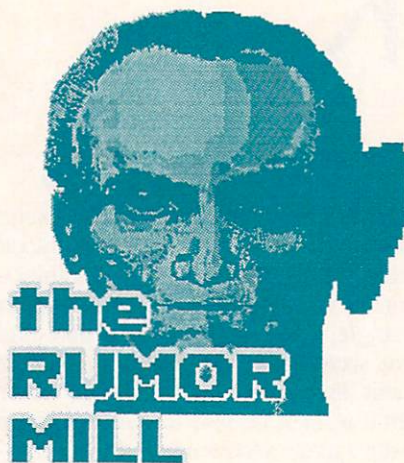
The first is called a **Trojan Horse**. Very simply, this is a program that says it is one thing, but is really something else completely. For example, a program may claim to be a graphics demo, but when it is booted and run it may instead reformat all the disks currently in your drives. Or it may even be more insidious. It may actually be a graphics demo, but perform some dirty work in the background while your attention is focused on the screen.

A second threat is the **Worm**. This program attaches itself to legitimate programs, wedging into their code. For example, a worm could attach itself to a game program, wedging its instructions into a subroutine call. It would then execute every time that subroutine was called, using the opportunity to copy itself onto other files, or to wreak damage to your files. If it was very well-behaved, it might even return control to your program so it would appear to be running normally.

A third threat is the **Time Bomb**. This can be a trojan horse, a worm, or a virus, that seems to do nothing at all. It waits for the system clock to reach a certain time or date, or for a certain number to be input, or for some other system activity to trigger its action. Time bombs are particularly noisome, since they can conceivably propagate themselves for a long, long, time before they do any damage at all.

more News and Views





DISCLAIMER: The following are among the most entertaining rumors we've heard the past couple of months. They are presented for your entertainment and amusement only. Please do not base any important decisions on these rumors, as many will prove to be inaccurate or just plain false.

- >We hear former Compute! editorial staffers Selby Bateman and Richard Mansfield may join ex-boss Robert Lock in launching a new non-computer magazine title.
- >Patech Software is said to be close to delivering new 80-column graphics and desktop publishing packages for the C128 that are based on their BAS-IC 8.0 technology. Each will sell for less than \$50, and will include laser printer support. Look for them April first.
- >ASDG has reportedly hit on a new copy-protection scheme for their soon-to-be-released Amiga game. Upon booting up, the game briefly plays the randomly-selected digitized voice of an ASDG employee telling you how much he likes his job, and how by purchasing and not pirating their software you are helping to feed his family. They call it "GuiltWare".
- >Though engineering types tell us they're not sure that the Amiga is physically capable of reading the Macintosh's variable-speed disks, but we hear that the format wizards at Coast-to-Coast are working on a translator program.
- >Those close to Commodore say they'll have a 1024x780 video card for the A2000, along with a compatible hi-res monitor, by Fall.
- >V1.4 of the Amiga operating system will reportedly handle WorkBench screens that size (or larger), as well as multiple displays, just like the Mac II.
- >We've talked to developers who claim to have the 640x400 non-interlace Denise chip already, though Commodore won't say.
- >The Really Fat Agnus can actually handle 2 megs of video RAM, but don't go adding it yet. The problem is that the 80-pin chip package has only enough physical address lines for 1 meg.
- >Despite the wishful thinking of some rumormongers, it looks like the "Next Generation" Amiga will be based on the 68020, not the 68030. The reasons: (1) cost, (2) power (the 68020 is almost as powerful), (3) compatibility, and (4) design (Commodore's 68020 board will serve as the basis for the new machine--a 68030 computer would take a whole new philosophy, operating system, and architecture).
- >Mimetics is developing a stand-alone editor for 3D modeling programs. It'll be called 3-Demon.
- >The 386 Bridgeboard now under development in West Germany will "almost certainly" support OS/2. Now all you have to do is arrange financing for a \$795 operating system.
- >We still hear the story that C/A is developing a PostScript support card for the A2000 that will drive an inexpensive Commodore-label laser printer.
- >Discovery Software is reportedly on the verge of importing 35 new games from Europe. (Do you think we'll see new Marauder II parameters for these soon?)

THINGS WE'D LIKE TO SEE

-> **Pause and Escape**, on everything. Every program, whether game or productivity, needs a key to pause execution and one to abort the current activity. **Pause**, because humans have kidneys, if for no other reason. Benn adds that it'd be nice if the screen froze, unchanged, during the pause feature so he could take a decent screen photo of it. **Escape**, because one of our major aggravations is software (like *Professional Page!*) that starts some long-winded process, then won't let you abort it without rebooting. And while we're on the subject, **Undo** is an extra added attraction that would be nice on most things, too. And if all the software manufacturers would get together and come up with some sensible standard so they would use the same keys from program to program, we'd appreciate it.

-> **An integrated, user-definable print spooler for the Amiga.** This would replace the PRT: device with a multi-tasking driver that would direct printer output to RAM: or to a storage device, then feed it to the printer at the printer's own speed. By having it replace the Preferences PRT: device, the spooler would work with all Amiga programs, and would return the application to you much sooner. Yes, we know the 1.3 printer drivers are faster, but we still anticipate long sessions staring at locked requestors, waiting for stuff to print. And having a copy in RAM: or on disk would make printing multiple copies a snap.

-> **A laptop Amiga.** Rich McIntyre said at the LA AmiExpo that Commodore had "no plans" to make a laptop Amiga. We're upset. If you'd like to see a laptop Amiga, we suggest you write him a letter at 1200 Wilson Dr., West Chester PA 19380.

SUMMER SHOWS

There is lots of computer show activity coming up this Summer.
Here are the main events, with phone numbers to call for more information:

DATES	SHOW/CONFERENCE	PLACE	PHONE
Apr 28-May 1	Amiga Developers Conf.	Washington DC	215-431-9100
May 9-12	Spring COMDEX	Atlanta GA	617-449-6600
May 14-15	Amiga/Commodore Show	Santa Clara CA	415-388-8893
June 4-7	Summer CES	Chicago IL	202-457-8700
July 22-24	AmiExpo Midwest	Chicago IL	800-32-AMIGA

In addition, the annual C.A.S.E. (Commodore Association SouthEast) show will be held at the Nashville Convention Center the weekend of May 21-22, with doors open from 9 am to 6 pm daily. Jim Butterfield and others will fill the podium, and many software companies will show their wares. Write PO Box 2745, Clarksville TN 37042, for information on displaying your products.



...continued from page 34

REVIEW RESPONSE:

U.S. Mail From: Steven J. Gollery, President, Thoughtform

Thank you for sending me the copy of *INFO* #19 containing Donald Maxwell's review of *Thoughtform*. In the main, it seems to me a fair and accurate report.

I must confess, however, that I am baffled by the sidebar discussing the use of outlines in general. Mr. Maxwell's information here seems to me to pertain only to non-computerized outlining and to ignore the fact that outline processors, because of their flexibility and speed, overcome exactly those objections which he makes.

In particular, let me quote one section of the sidebar:

"They compose mainly by making connections, by jumping all around, by perceiving patterns. So they write best by getting everything out of their heads in any order they happen to think of it...Formal organization, for them, has to come last, not first..."

This is exactly what an outline processor allows you to do: first you can

brainstorm a list of ideas, in any order, and then impose some formal organization on it. Because *Thoughtform* gives you extremely powerful commands to restructure the patterns of your ideas, you are encouraged to be as non-linear as you want. An outline processor lets you move easily between two levels of creativity--the generation of ideas, and the logical arrangement of them. Because a word-processor does not include commands to easily manipulate text in this way, starting your writing with one makes it much more likely that everything will stay "in any order [you] happen to think of it..."

As an English teacher, Mr. Maxwell has a great many years of experience and training in the craft of coherent writing. I think that is why outlining is, for him, not important for short pieces. But surely he has also had a great deal of experience grading student papers that were shapeless masses of random thoughts that could have benefitted by a little organization. It is my belief that *Thoughtform* could help those papers, even if it is not useful to Mr. Maxwell.

Thanks for your thought-provoking response, Steven. It strikes us that there may, indeed, be a difference between outlining on paper and outlining on a computer. We know there's a difference in writing--I'd sure hate to go back to a typewriter! But Don's point was merely that the prevailing research into the subject shows that most people just don't function well with outlines. Some do. Also, Joe Dawson at XYTEC, the producers of List Master (another C64 outline processor) pointed out to us that outlines don't necessarily have to be used exclusively for organizing writing. Joe uses List Master for a lot of things, including maintaining and ordering a daily "Things To Do" list. And, of course, you can still use an outline processor to produce a nice, neat, formal outline for the paper you've already written for Miss Prunejuice's 7th grade English Composition class. After all, as long as there are English teachers, there will probably be written outlines, even for those who don't think they need them. -Mark & Benn

Reader Mail continued on page 52 ...





INFO's Guide to the Best From the Rest

It seems that everyone is following *INFO*'s lead into the "hey kids let's get together and desktop publish a magazine" arena. *The Transactor* and *Robo City News* are both using Amiga publishing packages in their production now, and we expect more to follow.

ROBO CITY NEWS

A MAGAZINE FOR AMIGA USERS

Following an abortive attempt to use *PageSetter*, RCN was using a Mac to put out their magazine, just like *Amazing Computing*. (Yes, they were hanging their heads and looking ashamed as they did it.) Now they've switched back over to the Amiga, but this time they're using *Professional Page*, which is what we use at *INFO*. But where we dump our pages to an off-the-shelf PostScript laser printer, RCN's Editor Mitch Lopes tells us that they are running the output into a Linotronic 100 typesetter; it outputs the page on film, which can then be made directly into a printing plate. Cheers to RCN for seeing the light. If your sense of humor is a little (make that a lot) skewed, you won't want to miss the wildly funny piece of whimsy "Amiga: the Next Generation" by Mike Smithwick in RCN IV.2. We've already seen a sequel on *UseNet*. (12 issues/\$24. #3 Lagoon Dr., Ste. 180, Redwood City CA 94065)

COMPUTER SHOPPER

CS really ought to consider changing the name of the magazine to *Computer Shopper and Hernia Generator*. Byte looks almost puny in comparison. The February issue includes a hands-on review of the A2000 as well as a lo-o-o-ng, but useful piece on C128 80-column mode. There's also an excellent article on how to get the best performance out of your laser printer cartridges. It's worth clipping and saving. The March tome features sound and MIDI, stating that "the Amiga led the way in expanding the realm of microcomputer audio". We suspected as much. Ervin Bobo, who apparently wouldn't know an opinion if one trotted up and bleated at him, reviews *VizaWrite Desktop*. Whether he liked it or not, we don't know.

Transactor

The sad news has reached us that Karl Hildon, *Transactor*'s founder and Editor-in-Chief, has left *The Transactor*. We'll miss him. His departure has also caused some delays in the production of both mags as they switch over to desktop publishing. Boy, are we glad to see the *Amiga Transactor*. We were afraid we were going to have to go techie, but the folks at *Transactor* have stepped in and filled the void. The debut issue is filled with such nuggets as Andy Finkel's piece on CAOS (no relation to Maxwell Smart's arch-nemesis), which was to be the Amiga's original DOS. (8-bit or Amiga *Transactor*, 6 issues/\$15, 85-10 W. Wilmot St., Richmond Hill, ON L4B 1K7 Canada)

The Amiga™ Sentry

The February issue (there was no January issue due to "getting in step with our magazine distribution") focuses on MIDI. Publisher Tom Bucklin editorializes in the March issue about the selfless dedication required to put out a timely magazine of the *Sentry*'s type. Yep, we know all about it. (Sleep? What's sleep?) Also included are the first reviews we've seen of *Comp-U-Save*'s dual floppy drive and Aegis' new game *Ports of Call*, as well as *Sentry*'s *AmiExpo* report. (Their booth was behind our booth.)

COMPUTER GAMING WORLD

We just found CGW again after a long hiatus. They've been publishing, but we just hadn't been able to find them around here. The reviews are up to date, well-written, and have a definite *INFO*-ish flavor. They cover several machines, but the games are the ones we all know and love/hate. We thought the February issue was full, until we saw the March compendium, which reviews space arcade games, among others. Also included is a group interview with several SciFi writers on the future of computer gaming. (12 issues/\$29.50. PO Box 4566, Anaheim, CA 92803-9886)



For some great Amiga cheerleading, pick up a copy of this bi-monthly. The Feb/Mar issue has Amigas splashed all over its pages. There are articles on the late, sorely lamented *Max Headroom* show, and making music videos on a desktop system (Amiga, natch!) among others. Our quote of the bi-month comes on p. 59: "The Atari ST completely misses on every level as a graphics computer." See - we're not the only ones who think so. (6 issues/\$12. PO Box 625, Northport, NY 11768)

Amazing Computing™

The latest issue we have is Vol. 3 No. 2, which marks *Amazing*'s second anniversary. If you've ever wondered who Fred Fish of PD fame is, there's an interview with him. Lasers and laser light shows are an endless source of fascination, and Patrick Murphy reports on Amiga-controlled laser lightshows. There's a dual C and BASIC listing for *Solutions to Linear Algebra through Matrix Computations* that might be of use to those wanting to bridge the gap between the two languages, but not being of the mathematical persuasion, my mind numbed before I could get through it.



The March *AWorld*'s main feature is a lackluster buyers' guide to Amiga hardware; but if Joel Hagan's look inside "RGB" in this issue of *INFO* intrigued you, you may want to check out the March *AW*'s story on the making of "The Probe". The April editorial by Guy Wright introducing *AW*'s telecommunications issue starts off about as you would expect, but then Wright admits that he just plain doesn't like telecommunications. That takes gumption. He goes on to offer some thoughtful suggestions for simplifying the whole telecommunications scene. Interesting reading.

COMPUTE!

Selby Bateman, *Compute!*'s Associate Publisher, has disappeared from the masthead. We don't know for sure yet where he went, though we've heard some interesting stories... The revolving door on *Compute!*'s editorial office plainly shows in the cover piece on new technologies in the February issue. We know more about space limitations than we'd like to, but we'd particularly like to read the unedited version of the part on flat screens. We're sure it explains the technologies in more detail. The March issue zeros in on music and tax preparation software. We hear *Compute!* will have a new look starting with the May issue. We hope the paper quality of *Compute!* and the *Gazette* will improve along with the new look - it's gotten so thin we're starting to wonder how long it will be before they come in scented and unscented.

commodore

Commodore's house organ just keeps getting better and better, with more pages and more goodies per page. But, of course, *Commodore's* reviews continue to be of the less-than-critical variety. Gamers will want to check out the February issue, which offers tips on a multitude of games. You'll probably want to pull out those games you hid away in frustration and try these tips on them. In the March number Matthew Leeds tells us about Lorimar, the movie/TV production company, and its use of the Amiga in the TV series *Secrets & Mysteries*. And Lou Sanders offers a neat solution to data transfer between computers: he details how to connect two modems through a 9-volt battery without using a phone line. He calls it *Ma Sanders*. What a great name!

RUN

The March Desktop Publishing issue looks like a house organ for Berkeley Softworks. Other companies & products are mentioned, but it's mostly Berkeley. Lou Sanders has taken over the *Commodore Clinic* column, conducting it with his usual proficiency. The type-ins are yawners.

COMPUTE!'S GAZETTE

Newsflash! *Compute!* Publications develops stereo publishing! The March issue contains a report on the *World of Commodore* show by Neil Randall, who also wrote the report on *WOC* for the March *Compute!*. The March *C/G* also features an interview with Berkeley Softworks' Brian Dougherty. If you're a C128 CP/M user, you'll want to pore over "Super CP/M Software"; part 1 covers word processors and Part 2 (April) delves into languages and utilities. Each month features lots of pages of triple column type-in hex listings. One long-standing policy of *Compute!* Publications deserves some kudos: if you type in a program or buy it on disk, you can share it with anyone else as long as they own the magazine it came from. It's a real worksaver, and a good deal.

Ahoy!

Mort Kevelson tells you More Than You Ever Wanted to Know About Power Supplies in the March Ahoy!, and Dale Rupert attacks sound envelopes. Rupert explores the most obscure BASIC commands in the April issue, and Mort digs into 1541 speedup hardware. Cleve Blake-moor's got a nicely commented, mostly-BASIC game called Time Subway that looks pretty good in that issue, too.

BYTE

No Amiga in *Byte*, no *Byte* (but plenty of bite) in *INFO*. Besides, we're tired of Jerry Pournelle's whining.

OTHER MAGAZINES

The staff cutbacks have slowed down *Comal Today*--we've seen no new issues since the last *Magazine Index*, though we expect a new one Real Soon Now.

Issue #5 of *Money Machine* has full-color covers and is laser-printed. It looks great--even the page filled with three large color photos of publisher Don Vandeventer! (And you thought we were vain!) The main feature of this issue is *MM's* 28-page buyer's guide to C64, C128, and Amiga

productivity software. *INFO's* best wishes go out to Publisher's Assistant Paula Vineyard, whose health has slipped a few notches the past couple of months. (6 issues/\$16. PO Box 2618, Ocala FL 32678)

If you're a GEOS programmer, don't miss *Master Blaster's* compilation of errata for the *GEOS Programmer's Guide* in the January issue of *GeoWorld*. It's also got lots of good stuff from Paul Hughes, Susan Pugh-Lamb, James Hastings-Trew, and others. (6 issues/\$12. 38 Santa Ynez St., Santa Barbara CA 93103)

Issue #19 of *Twin Cities 128* contains an article by Commodore's own Fred Bowen outlining the problems with the 1581; he includes a BASIC type-in program that will tell you if your unit is okay. Lots of good reviews and tutorials, too. (12 issues/\$25. PO Box 4625, St. Paul MN 55104)

If you're a hard-core adventure gamer and you regularly butt your head up against those dead-ends in the dungeons, you need Shay Addams' *QuestBusters* newsletter. The February issue includes a map for *Plundered Hearts*, and clues for many others. My mother-in-law might never have finished *Maniac Mansion* if it hadn't been for their map! (12 issues/\$16. PO Box 525, Southeastern PA 19939-9968)

DISK-BASED MAGAZINES

Congratulations to *Jumpdisk* on the publication of their 20th issue! The March *Jumpdisk* imparts the news that another disk magazine, *Aladdin*, has suspended publication while it awaits an influx of capital. *Jumpdisk* continues its AmigaBASIC tradition with learnable programs and tutorials. Take a look at *RicePaper* (Feb.), an interesting variable-brush-size drawing tool. (\$3 sample issue, or 12 issues/\$66. 1493 Mt. View Ave., Chico CA 95926)

If you picked up a copy of *AmNews* at AmiExpo in LA, you've probably got the virus. Only show copies are infected; the copies they mailed are supposed to be clean.

The C64 disk magazine *LoadStar* is sporting a slick new user interface that's a vast improvement over the old one. Besides giving disk space to the best type-ins from *Commodore Magazine*, there are always lots of extra goodies in *LoadStar*. (3 issues/\$19.95. PO Box 30008, Shreveport LA 71130)



INFO UPDATE

NEWS UPDATES

Ike Riehl typo-ed his phone number when he sent us his unclassified ad for **GEOS fonts** in INFO #18. It should be 817-295-5806. See the unclassified section in this issue for the full ad.

The folks at **The Plotting Shed**, advertisers in the INFO Unclassifieds, advise us that they have had trouble finalizing development of their products. They have promised to deliver "soon" or refund our readers' money. Until they do deliver or refund, we have pulled their ad.

Oops! We printed an incorrect phone number for **Kidsview Software** in #19. It should be 603-927-4428.

Chuck Slotter of Roxborough, PA wrote to tell us "**Motor Mania** has been resurrected from the dead." It's available from **Celery Software**, 415 N. Figueroa, Wilmington, CA 90744.

MicroProse continues to fight the German government, which banned **Silent Service**. The West Germans banned the submarine simulation to "prevent the sale of objectionable material to youth". MicroProse has appealed the decision. Seems pretty silly on the West Germans' part. If they can release a movie like *Das Boot*, which was grimly realistic and violent, they surely can't object to a computer simulation.

Somewhere on the way from eye to finger, the company and address listed for **Amiga TeX** in #18 was garbled. For more INFOrmation, contact Tomas Rokicki at **Radical Eye Software**, Box 2081, Stanford, CA 94309, 415-326-5312.

Reader Daniel Skelton INFOrms us that the **C64 LOGO** programming language, which we thought had disappeared into the bitstream forever, is, or at least was, available from **COMB liq-**

uidators for only \$19 plus \$4 shipping. Contact their store in your area or order at 1-800-328-0609.

Data East's Moving Target budget line has added classics **Q*Bert** and **TNK III** to its list of titles at \$9.95 each.

David Zechiel, the author of **Black Box** (INFO #19 *Public Domain*) is offering his original, heavily commented source code for \$6. Write to him at 20502 E. Amherst Dr., Walnut, CA 91789.

We need to straighten out a couple of things about **Geoworld** and **LaserDirect** laser printing service. While LaserDirect owner Skip Goetzinger does write for Geoworld, there is no official connection between Geoworld and LaserDirect. Any inquiries about LaserDirect should be directed to PO Box 20913, Milwaukee, WI 53220-0913, 414-543-9923. **Geoworld** has been kind enough to forward all the requests for information to **LaserDirect**, but they don't want to do so forever! INFO regrets the mixup.

Thanks and a tip of the INFO chapeau to reader Robert Jones, who not only filled our wish for an Amiga CLI **CALC** command (see our *Things We'd Like To See* column in issue #19), but he did it in record time! The executable code for his **CALC** command is less than 10K in length. The command, which implements the standard "four-banger" calculator commands, allows for multiple nested parentheses and proper mathematical precedence. Thanks, Robert! We hope to upload an arc file to the major networks containing both the executable and source code, as soon as we can get Robert's permission to do so. Example usage:

```
1> CALC (3 + 3) * (5 - 2)
18.00000
1> CALC 3 + 3 * 5 - 2
16.00000
```

MOVES

Well, we screwed up. **New Horizons** did, indeed, move, as we reported in this column last issue, but they still receive mail at their post office box. You should still send all correspondence to: PO Box 43167, Austin, TX 78745.

Hash Enterprises, publishers of **Animator-Apprentice**, has moved. Their new address is 2800 E. Evergreen Blvd., Vancouver, WA 98661. 206-693-7443.

We've been seeking **DigiTek's** address for quite a while now. We finally found them--it's 104 W. Seneca, Tampa FL 33612, 813-933-8023.

SOFTWARE UPGRADES

The folks at **PDJ Software** have gone bug-swatting in their **AiRT** icon-based programming language for the Amiga and added a bunch of new features to it as well. The resulting upgrade can be had by registered owners for only \$6.00. PDJ Software, 111 Thornwood Dr., Marlton, NJ 08053. 609-596-8991.

Infinity Software has released **Galileo 2.0** for the Amiga. \$10 plus \$3.50 S&H, along with your old disk will get you the upgrade. They are also offering a supplementary **Yale Bright Star Disk** with an additional 9100 stars on it, effectively quadrupling the number of stars you can look at. It works only with the new v2.0, and is available for \$11.50 + \$3.50 S&H. Infinity Software, 1144 65th St., Studio C, Emeryville, CA 94608. 415-420-1551.

Free Spirit Software tells us they have redesigned the packaging and illustrated the manual more clearly for their **1541/1571 Drive Alignment** software. The price stays the same, at \$34.95.

...continued

INFO UPDATE

They've also updated and repackaged **Super 81 Utilities** for the 1581 3/12-inch drive. The price stays at \$39.95. Shipping and handling are free. For the updates, contact Free Spirit at 905 W. Hillgrove, Ste. 6, LaGrange, IL 60525. 312-352-7323.

Inkwell Systems, makers of **Flexidraw** for the C64, are now offering their eight **Graphics Galleria** disks as two sets of four disks each, at a reduced price of \$29.95 per set, a considerable savings over the individual disk price of \$9.95. Each disk includes clip art in both *Flexidraw* and *Doodle!* formats. **Inkwell Systems**, 5710 Ruffin Rd., San Diego, CA 92123-1013. 619-268-8792.

S.O.G.W.A.P. has announced an upgrade to their **Big Blue Reader** MS/DOS and CP/M file format transfer software. The latest version is called **Big Blue Reader 128/64**, and includes versions for both 8-bit Commodore machines. It works with 1571 on the 64 and 1571/1581 drives on the C128. Upgrades are \$18 plus the old disk.

Following an initial lower introductory price, the price of **Superbase Professional** for the Amiga from *Progressive Peripherals & Software* has been set at \$349.00.

Lattice has replaced their *Text Management Utilities*, **CXREF**, and **LMK** programming environment support packages with a single product. The \$99 **Compiler Companion** collection for the Amiga contains 10 utilities, consisting of **EXTRACT**, **BUILD**, **CXREF**, **DIFF**, **FILES**, **FREP**, **LMK**, **SPLATR**, **TOUCH**, and **WC**. They have been recompiled using v4.0 of *Lattice C* for increased speed and smaller executable code size. There are currently no plans to offer an upgrade price to previous purchasers of Lattice utilities.

Designing Minds has released **Great States II** for the Amiga. Purchasers of the original *Great States USA* program from *The Other Guys Software* can upgrade to the new version by sending in their old disk and \$10. The address is: 3006 N. Main St., Logan UT 84321.



THE REAL WORLD

SUPERMAN IS 50!

It's been 50 years since Superman leaped his first tall building, and that calls for some kind of a celebration, doesn't it? DC comics has responded by releasing *Yet Another Graphic Novel*, called **Superman: The Man of Steel**, subtitled "*The Remaking of the Legend*". In this book, compiled from the retelling of the Superman story in DC comics over the past couple of years, British artist/writer John Byrne messes with the legend again, giving us yet another vision of the planet Krypton, Ma and Pa Kent, and the adult life of the Original Superhero.

I remember Krypton as a place of Art Deco brilliance, and the Superman movie presented it as a hot planet full of cliff-dwellers, but Byrne's Krypton is filled with sterile, impersonal, stark cities populated by an antiseptic race. Baby Kal-El is kept in a sterile isolation bubble. And even Marlon Brando played a more endearing Jor-El than the pale, robed character in this story.

When I was a kid I had a whole stack of comics telling tales of the youthful Superboy in his home town of Smallville, but Byrne's story has Clark Kent holding off on his superhero career until he reaches adulthood. And he's a high school football hero, not the Class Wimp. What the heck is going on here?

It smells to me like another case of remaking and remarketing something that wasn't broke in the first place. DC seems to feel some need to update Superman; to make him "socially significant". But in their rush to be relevant and "Eighties", they've forgotten

that the only reason for the existence of some things is pure fun and entertainment.

And if they thought long and hard on the subject, Superman hasn't been a complete loss in the "social significance" arena, either. It didn't hurt any of us to grow up with a Real American Hero, someone who always defended Good against Evil, whether there was a buck to be made in it or not. I'd a lot rather look to Superman for my ideals than to Rambo.

There seems to be some misconception among marketing types that just because something is fictional, it can be changed into anything they want it to be. Not true. Legends belong to everybody, and you can't just go mucking around with them so you can make a little more money. They didn't need to "sell" us a new Superman. Sure, he was a little too idealistic, way too "WASP", and maybe even a bit naive, but we were happy with him. Maybe his "purpose" was to serve as an outlet for the frustrated Boy From Kansas in all of us--the one who wishes he had the power to overcome evil by just smacking it around a little, so the world would be safe for Pa out in the wheatfield and Ma standing ready with an Apple Pie. Maybe even for Truth, Justice, and the American Way. And what's wrong with that?

I just hope that by the time we're wizened old geezers, there will still be a few good things left that the marketing droids haven't screwed with for the sake of marginally better sales, 'cause I'm getting damned tired of it.



INFO visits the magic land of...



During a phone call to NewTek's VP of Marketing, Paul Montgomery, in February, it was discovered that a cosmic event as rare as the Harmonic Convergence was about to present itself: due to a perverse glitch in the time-space continuum, a 24 hour span of "free" time affecting both INFO and NewTek would occur commencing at approximately 12 noon on the 25th. I suggested to Paul that since there was apparently a Klingon conspiracy afoot to keep me from seeing the Video Toaster (I missed its unveiling at Comdex by 1/2 hour, and its TV debut on Computer Chronicles due to Democratic debate pre-emption!), this would be an ideal time for an official INFO visit to NewTek: I would not only be able to see the fabled Toaster (see sidebar) in its final phase of development, but I would also be able to check out first-hand, vague reports (circulating with increasing frequency among the movers in the computer-video community) of pagan rites and curious goings-on in and around the vicinity of NewTek's Topeka headquarters. Paul agreed enthusiastically to the meet, but with the proviso that I adhere strictly to the corporate customs, and participate in an exhausting cultural schedule. As risky as it sounded, I found myself agreeing to book the flight and get the whole story.

The Company

The day of my visit arrived, and I crammed myself into the only air-conveyance connecting Iowa City and the capitol of Kansas: a SAAB twin-prop commuter featuring no meals, no restroom, and every seat both an aisle and window! After I checked into the local Holiday Inn, Paul and NewTek president Tim Jenison picked me up to have lunch with "the guys" at one of Topeka's favorite restaurants. While we waited for a table, we hit the local computer store next door and Paul picked up brand new copies of JET and TIME BANDIT to take back to HQ for "testing" after lunch.

Back at the restaurant I was initiated into the first corporate custom, the consumption of an incredibly delicious sandwich called a "Smokin' Dave". As each NewTek employee in turn ordered a

"Smokin' Dave", diet Pepsi, and identical salad, I thought I detected more than a coincidental thread of unity running thru the five co-workers gathered at the table in their matching brown leather bomber jackets, dark sunglasses, and Casio Data-Bank watches. Back at NewTek HQ, this perception was further confirmed and somewhat explained.

As it turns out, the creative magic at NewTek springs from a closely knit band of eccentric and talented individuals who live and breathe the NewTek vision. The focus here is so intense, and the work so compelling, that those involved have merged social and professional existence into a single

rare wire-wrapped beta version of Marble Madness!) there are electric guitars, amps, and keyboards available for spontaneous jamming, and there is the NewTek "armory", where Laser-Tag gear and roller skates are dispensed, swat-team style, when the need arises. And, of course, there are computers - lots of computers. Most of the computers are Amigas, but there is also a mini-VAX and a handful of Mac II's (affectionately referred to as "boat anchors" by the unimpressed staff).

If all this suggests a less than serious outlook on business, you are part right. The most important virtues at NewTek seem to be having fun, trashing the rules, tackling the supposedly impossible, and boldly going where no hacker has gone before. That this philosophy underpins one of the most dynamic and financially successful new companies in the Amiga products industry today may serve to recommend some radical re-evaluation by those who feel that "dull" and "conservative" rhyme with "success".

The People

Tim Jenison is the president, founder, and guiding guru at NewTek. An accomplished musician, Tim found himself moving from Iowa(!) to Kansas to accommodate his former band's booking schedule. As another non-college graduate, Tim ascribes his formidable electronic and design skills to constant exposure from infancy to the equipment, language, and concepts brought home by his electronics engineer father, and his IBM-employed uncle. Tim is quiet (like the eye of a tornado), and has surrounded himself with bright young talented people who, in addition to their various specialties, share the common job of keeping Tim protectively isolated from the mind-numbing concerns of business administration. This frees Tim to brainstorm, play, and design the next wave of cutting-edge products which are pushing the Amiga to the forefront of the total desktop Video Suite and other techno-wonders us mortals can only guess at. Tim's office looks like a combination of Mr. Wizard's lab and recording studio, with test equipment up one wall and various keyboards, sequencers, and drum machines across the other. One wall is devoted to hi-tech toys and



environment, which makes NewTek HQ feel like a cross between a college dorm and a hi-tech Shriner's lodge. One of the results of this space station life-style is a good-natured, self-imposed conformity among the ranks: in addition to the above-mentioned NewTek uniform (Tim wears two Casios, perhaps to display tribal leadership), there is the NewTek computer-nerd accessory pack (INFO pocket-protector with NewTek miniscrewdriver), the NewTek Penn & Teller fan club, and the official NewTek flavor (cinnamon)!

There is also a distinctly NewTek approach to reducing stress and maintaining a creative environment: there is the EVIL DROME, a lightless room containing a half dozen coinless arcade machines (including a

contraptions, including a Big-Trak programmable tank, a Fisher-Price cassette video camcorder, bi-metallic robot arms, bizarre Japanese robot warriors, and a large thermos full of liquid nitrogen. The latter is for cooling superconductors to operating temperature (which Tim used to demonstrate the Meissner Effect to me). If it's interesting, new, and techy, Tim probably has it in his office.

Then there's Paul Montgomery, VP of marketing & general NewTek enthusiasm commando (Paul is the one who infiltrated Atari with another unnamed NewTek staffer and gave us such a hilarious and revealing look at Leonard Tramiel and the Atari mindset - see INFO #17). Paul helps translate Tim's genius into terms that laypersons can understand and get excited about. Pre-dating Paul are several other ever-present characters: Robert Blackwell, the head of manufacturing, a buoyant and somewhat mischievous Vulcan - Steve Kell, chief programmer, and a serious party-animal in his own right - and the recently famous Laura Longfellow (better known as Maxine Headroom on NewTek's demo disks) whose office door is simply labeled, "I am not a Bimbo". The newest personnel development at NewTek is the recent acquisition of hardware wizard Brad Carvey as a full-time NewTekker. Brad has impressive credentials including top secret clearance at Sandia Labs, and a brother, Dana, known popularly as "the Church Lady". Brad is a wonderful and eccentric person who, though morally opposed to eating lobster, should fit in like a RAM chip at NewTek.

The Wrap

I am a bit frustrated in not being able to divulge at least some of the breath-taking product developments currently underway at NewTek. Much of the work is so radical, that it promises to significantly change the way computers and video are used, not only in the personal computer industry, but in high-end broadcast and scientific video processing as well. All I can say is that consumers are in for an exciting year, and if even a fifth of the products being worked on at NewTek reach the market, there will be a veritable revolution in the industry. Thanks to the great folks at NewTek for the wonderful hospitality and eye-opening look at the future.

Oh, and those rumors of pagan rites? A gross exaggeration which undoubtedly has its origins in a ceremonial excursion to the local Japanese restaurant where the sake bottles are never empty, and after which unwary visitors may be lured, by sake-crazed NewTekkers to the Outer Limits, a local club where immodest young ladies actually... again, there is much I am not free to divulge -Benn Dunnington

THE VIDEO TOASTER

The initial rumors were mysteriously devoid of detail: NewTek had a new product under wraps in their development labs, code named the "Laser Toaster". The official story was an obvious (but fun!) smokescreen. It was, they said, a computer-driven laser toaster that could etch graphics on bread at 32 crumbs-per-inch resolution. They expected expensive hotels to use it to burn their logos into the toast and muffins they served. It offered options like "Jelly-Jet" color capability, and a "HAM-on-toast" mode. For months, no one could get the straight skinny on the *Toaster*.

Finally, at Fall COMDEX, NewTek publicly showed the *Toaster*--not the fictitious "Laser Toaster", but the very real Video Toaster that the rumor had helped to conceal. And what a device it is! This under-\$1000 hardware/software package (for all Amiga models) incorporates video capabilities that have been limited previously to \$20,000-and-up video graphics workstations.

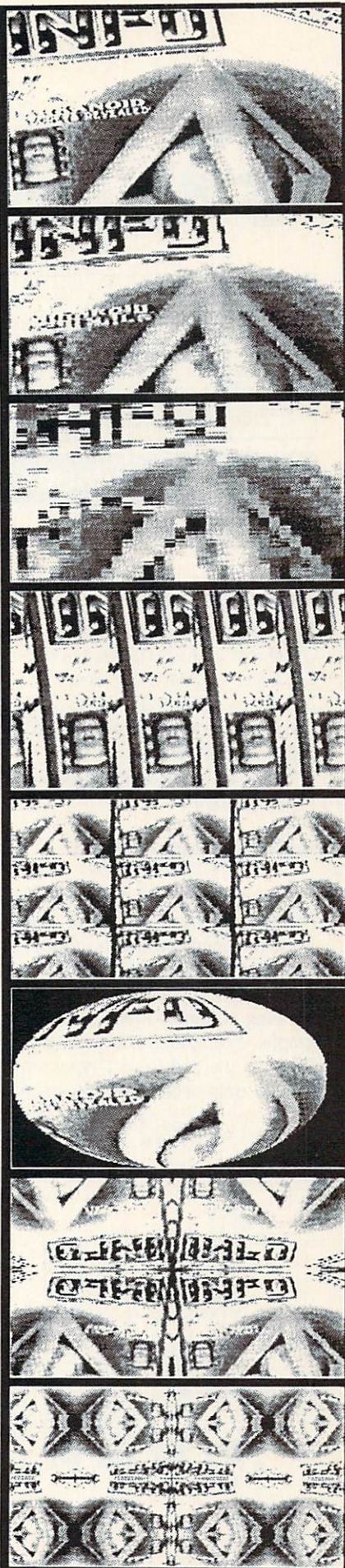
The *Toaster* incorporates its own frame buffer--dedicated video RAM that captures real-time video at 60 frames per second. The image RAM then can be manipulated under computer control. This means that any live or taped video image can be made to undergo transformations like those you've seen on network TV. The effects themselves are so dazzling that many who have seen the demos have missed the fact that the images being manipulated are moving, too--they are not simply "frozen" still frames. For example, a horse can be tumbling end over end or warping around a sphere while it is galloping! Over 100 such ADO (*Ampeg Digital Optics*) -type effects will be included in the *Toaster's* software, including montage effects, transpositions, blinds, fish-eye and sphere, page flips and turns, mosaic effects, and many more (the frames to the right are digitized stills we captured from a "Toasted" video sequence. Ironically, since the *Toaster* isn't available yet, we had to use SunRize's *Perfect Vision* digitizer to grab these frames!)

Besides the effects, the *Toaster* also serves as a broadcast-quality genlock, and a 1/60-second digitizer, with excellent resolution and support for full HAM, 32, or 64 color IFF images!

Best of all, the *Video Toaster* is an open-ended design. NewTek already has plans for additional add-on software and hardware. On the drawing board are a plug-in video co-processor board, chroma-key, a professional video switcher, an NTSC 16-million-color paint program, and other stuff they won't even tell us about yet!

Since all of the data being manipulated is digital, there is no signal loss involved in the entire process. The image that comes out of the *Video Toaster* is as good as (or better than!) anything you have seen on network television. This is new technology, a level of magnitude better and less expensive than that in use by the professionals now.

In the *Toaster*, NewTek epitomizes the unique promise of the Amiga: cutting-edge professional products at consumer prices.



Public Domain

DEFINITIONS--

PUBLIC DOMAIN: Not copyrighted; available to all; free for the copying.

FREE-ACCESS: Copyrighted but released for free public use; not to be resold for a profit.

SHAREWARE: Copyrighted but available for copying, with a donation requested from those who use the program.

64 QuantumLink

by Saul E. Cohen

GRAFPAX1.1.ARC

FROM: SYSOP PH

Location: CSS/ Software Library/
Graphics/ Utilities/ Other Utilities

DL Date: 03/29/87 145 Blocks

D/L times 1200-9:21 300-32:46

Other Programs Required: ARC230

From: Sysop PH

Recommend Program: **grafdocs.sda**

From: Sysop PH



Have you been looking for that almost-perfect graphing program, but don't want to spend too much money? Well, **Grafpx1.1** is the solution. This program uses a fast machine language drawing routine to plot high-resolution graphs, histograms and even pie charts. Each of the 8 different types of charts has its own section of information, or

you can download the separate instruction file **grafdocs.sda**. The **Grafpx1.1** arc file consists of several programs which have been linked and compressed together--to get a working copy you must reverse this process using the ARC utility, also available on QLink. You load and run the **grafpx.cz** program and use the file editor option to enter your data, select your graph type, and watch your graph as it is painted on the screen. You can print your graph with an Epson-compatible printer, or save the screen as a large Doodle file.

COMPILER.64

FROM: Chinook1

Location: CSS/ Software Library/ Programmers' Workshop/ BASIC/ Other Utilities

DL DATE 04/04/87 63 Blocks

D/L times 1200-4:04 300-14:14



A BASIC program is a listing of steps which the computer translates into machine language, one instruction at a time; each line is interpreted every time it is encountered. Interpreted BASIC is fast enough for many tasks, but some require more speed. **Compiler.64** takes your BASIC program, translates it into p-code (or *pseudocode*) and saves it to disk. The new code will now bypass

the BASIC interpreter in your computer. For this reason, the program will now run up to 25 times faster. It's easy to use: just load and run **compiler.64**, insert your disk of BASIC programs with enough room for the p-code, enter the title of the BASIC program you want to compile, and sit back as the compiled version is created. **Compiler.64** makes two passes through your program. During the first pass, any BASIC errors will be listed to the screen. You should jot these down and make the appropriate corrections before compiling the program again.

DE-BLITZ 87

FROM: Skynyrd

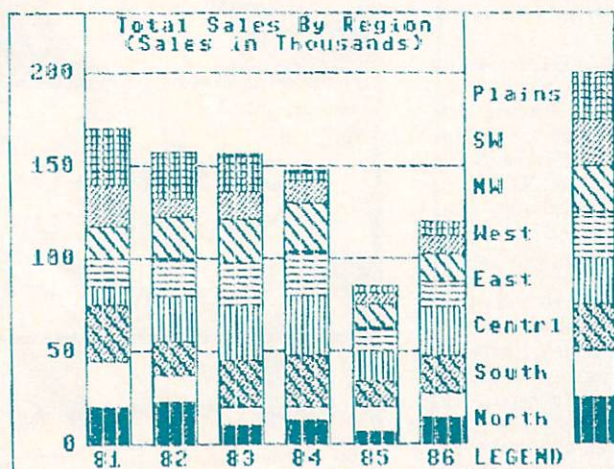
Location: CSS/ Software Library/ Programmers' Workshop/ BASIC/ Other Utilities

DL Date: 09/10/87 48 Blocks

D/L times 1200-3:06 300-10:51



You have the opportunity on QLink to download a number of great programs. You will find that many of the downloaded programs work exactly as anticipated. Once in a while though, a program needs a few changes. Some programs look like this when you list them: **10 SYS 2064 BLITZED!** This means that the program has been compiled from BASIC using the commercial **Blitz** compiler from Skyles Electric Works. **De-blitz 87** will convert a Blitzed program back to its original BASIC format, so that you can modify the code to suit your needs. **De-blitz 87** will also work on programs compiled using **Compiler 64** (see above). To use it, you simply load and run **deblitz 87**, insert your disk of compiled programs (with enough disk space), enter the title, and away you go. You can then modify the BASIC program as you wish and compile it again with **compiler.64**, or **Blitz!** or any other commercial compil-





er. **Compiler.64** and **deblitz 87** make a perfect pair for your utility library.

B.A.SDA (Bank Account)
FROM: dummy6 Author: Dummy6
Location: CSS/ Software Library/ Applications/ Home/ Budget
DL Date: 10/24/87 166 Blocks
D/L times 1200-10:42 300-37:31
Shareware: \$5.00 requested by author.



Use this bank account program for all your checking needs. It can handle up to three different checking accounts. Enter your periodic bills once and have them stored on disk for recall and use each month. You have the option to print out your checks or just keep an accurate record of what is spent. Balance your account at the end of the month and save it in a special file. You can even print out your register using a 1525-compatible printer. When you load and run **b.a.sda**, it will automatically dissolve into a number of programs. Load and run the **boot** program to get started. (The access code is "money"). There are several utilities on the disk including **fast load**, **file copier**, **converter** and **transaction editor**. Use the **converter** program to update your files if you've been using the original **H.A.L.** version. The **transaction editor** allows you to correct data errors in your records. The new version of **bank account** far surpasses the original and is well worth trying.

ROBBERS

FROM: Fargo Author: Davis
Location: CSS/ Software Library/ top 20 Downloads/ browse
56 Blocks
D/L times 1200-3:37 300-12:39
Joystick Port #2



Browse through the top 20 programs on Q-Link's library and you'll find several great games. **Robbers** is one of these. You are the robber in search of jewels and money. The loot is found in several buildings off the main street. Sidestep the police and guards as you continue

your search through the buildings. A variety of rooms provide you with the opportunity to "score". Watch out--if you are caught you will end up in prison. Have fun!

Atomic handball
FROM: Fantasia Author: Len Lindsay
Location: CSS/ Software Library/ Game Room/ Arcade/ Other
DL Date: 1/28/86 15 Blocks
D/L times 1200-:58 300-3:23
Joystick port #2



Here is one of my all time favorites. **Atomic Handball** is an arcade quality version of breakout. Use your joystick to move the paddle as you bounce the ball against the targets. The action gets hot and heavy the longer you keep the ball in play.

ABOUT THE AUTHOR:

Saul Cohen is an eighth grade science and computer teacher in Montgomery County, Pennsylvania. He also teaches a variety of computer courses to teachers. Saul's computer interests include wordprocessing, teaching applications, and of course telecommunications. You can reach Saul on QuantumLink via Email to INFO SC.



PEOPLELINK 64 & 128

by Bob Umfer

M&MTERM4.1A.SDA
Section 5 File #7439



A speedloader, three types of Xmodem (Checksum, CRC, and Kermit Woodall's Windowed), Punter, and a 27K buffer make Michael May's "free-view"-ware graphic/ASCII terminal program one of the hottest downloads. It even supports the Volks 6480, as well as all Commodore modems at 300 or

1200 baud. It uses 93 disk blocks and self-dissolves.

EYESOTERIC
Section 14 File #7500



Your eyes will pop out of their sockets when you see what Mega Apocalypse has created for the C64 this time. This is just one of several hundred musical and graphic demos available in section 14. The file is 73 disk blocks long.

YELLOW PAGES 2.1
Section 4 File #7497



Kevin Hopkins has updated the original version of Yellow Pages. Use it to re-order your directory and clean your disk after you've done a number of deletes, adds, etc. This is a nice program to have on your utility disk. It uses 24 disk blocks.

SWORDMASTER II
Section 8 File #7502



Kill the invaders as they try to enter your castle. Your life depends on it. You'll need a joystick in Port 2 to help you. The graphics are reasonable and the game isn't too difficult. No author credit is given for this program. It uses 23 disk blocks.

COMMODORE 128

PRO128TERM14.SDA
Section 12 #7453



A 12-line scrolling split screen along with a phonebook, large buffer, 1670 and Hayes compatibility, and 40-60-80-column viewing possibilities makes Paul Aidukas's ASCII/Color Graphics 1200-baud terminal program one of the best in the public domain. Adding Windowed Xmodem would make it just about perfect. This file self-dissolves and is 190 disk blocks long.





STARBBS V3.0.SDA
Section 12 #7521



Version 3 of Rodney Martin's STAR BBS offers Xmodem and Punter transfers, compatibility with Commodore's 1650, 1660, and 1670 modems as well as the 1541 or 1571 disk drive (or hard drives), unlimited users and messages, and space for 20 SIGS. The caller can choose between 40 and 80-column format. This file self-dissolves and occupies 208 disk blocks. The documentation is included.

AUDIOPHILE128 V1.3
Section 12 #7284



Need help cataloging your compact disks and/or records? Stephen Hatfield has written a database program for just that purpose. Used in 80 columns, this program will sort, search by artist or author, and it permits 13 song entries for each recording. It will even print cassette labels. It is 70 disk blocks long.

TIERRABASE 2.0
Section 12 #7474



John Woolcock has borrowed routines by Mike Konshak, Dan Bickford, and Fred Bowen to create a sequential file database program with almost unlimited use. Choose the number of fields, as well as the name and length of each to personalize it. Sort, search, modify and print capabilities are included. It's user friendly and is 116 disk blocks long. It's written in uncompiled BASIC.

ABOUT THE
AUTHOR:

Robert Umfer, as CBM*BOB, shares the Sysop duties with CBM*LARRY in the Commodore Club section of American PeopleLink. He has a B.A. in French and an M.A. in computer science. His 'day job' is teaching high school French and Spanish.



You can get information about signing up for these network services by calling:
QUANTUMLINK: 703-883-0788
AMERICAN PEOPLELINK: 312-870-5200

PEOPLELINK AMIGA

by Harv Laser

NAG14.ARC
Sec 9 Num 10,401
Author: Richard Lee Stockton (RL-STOCKTON)
Bytes : 77,824
Shareware

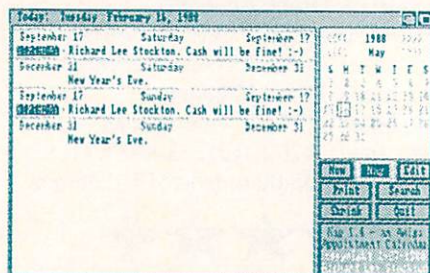


Nag is an appointment calendar with its own editor, gadget-laden interface, and unique 'nagging' feature that uses the Amiga's voice and sound hardware. If you're the forgetful type, always missing important dates or appointments, or just don't get nagged enough in your life, this is the program of your dreams! If you really want to experience some abuse, you can set the program to nag (remind) you up to 99 different times per day for up to two years, and do it with a screen flash, beep, speech, or even a digitized sound effect. To me, the hallmark of a well-written Amiga program is one that doesn't send you up the mountain to visit the Guru just because you forgot to put some little piece of data in a particular directory. Nag requires some special setting-up before it will run as the author intended, but it's so smart it'll even nag you if you try to run it before configuring it properly!

BROWSER.ARC
Sec 4 Num 10,415
Author: Peter da Silva
Bytes : 29,440



The Workbench environment (windows, icons, mouse) has built-in limitations. Not every file or program on a disk can be accessed on Workbench since many of them don't have icons. CLI, on the other hand, is strictly a typist's haven. Browser tries to bridge the gap between the two. The author calls it "A Programmer's Workbench". After firing up Browser, directories are displayed in small overlapping sizeable,



NAG, NAG, NAG!

draggable windows. Its menus have options to open, close, rename, delete and move files and directories by dragging their names between different Browser windows. Browser can supplant or replace a DirUtil type program you may already be using, and unlike Workbench, it lets you see ALL files on your disks, not just those which have icons attached to them. This is one of those little utilities that might make you ponder the question: "Why didn't Commodore think of this?"

SCREENX.ARC
Sec 4 Num 10,025
Author: Steve Tibbett
Bytes : 11,776



Did you ever find yourself on a screen with no front to back gadget and the screen doesn't move with the right-Amiga M and N keys? Well just call up ScreenX and you will see a list of all your screens currently operating. Click on the one you want to go to or cycle through them all. ScreenX will also grab any active screen and dump it as an IFF picture to any filename you specify. ScreenX can be "Iconified" so it sits on your menu bar as a little clock plus RAM meter, waiting for you to wake it up and use it. There's no printer-dump function in the program yet...maybe in the next version. Two other creations by Tibbett, TaskX and DiskX appeared at the same time as ScreenX. TaskX.ARC (file number 10024) is an Amiga task priority monitor/modifier with which you can easily control how much CPU time each of your running programs gets. It's a lot easier to use than the AmigaDos



ChangeTaskPri command because it lets you see what you're doing. Like *ScreenX*, *TaskX* can be clicked on and iconified down to menu-bar size. *DiskX.ARC* (file number 10023) is a disk sector editor that works on hard drives and RAMdisks too. Steve Tibbett writes handy, truly useful programs that are easy to manipulate, and his documentation is humorous and complete.

IMACH16.ARC

Sec 4 Num 10,306

Author: Brian Moats (BRIANM)

Bytes : 41,984



Mach has so many features, it's difficult to list them without sounding like I'm describing the layers in a Big Mac. For starters, how would you like one program that will give you a mouse pointer accelerator, sunmouse (any window you touch your pointer to becomes the active window), click-to-front (any window you click in moves in front of all other windows), screen blanker, screen shuffler, two clocks, beep timers, online service money meter, hotkeys, and a NewCLI popper for starters? **Mach** is busier than a pickpocket at a parade! You aren't forced to have all of these features active since **Mach** can be tossed parameters at runtime telling it which things you want to use. **Mach** can take the place of many other programs that you might already be multitasking together, and which only provide one of the above environment-enhancing goodies.

CONIZE.ARC

Sec 5 Num 8,577

Author: Stephen Vermeulen

Bytes : 26,112



If you're yearning to turn some of your full-size artwork into Workbench icons, here's a pair of programs that will make the job a lot easier and reward you with outstanding results. **Iconize** takes a full size Amiga picture and reduces it in an antialiased fashion by a factor you specify. The program was written to

supply a simple CLI tool which can be used to make custom icons for paintings. It works! I've done a lot of experimenting with **Iconize** and found that the picture-shrinking algorithms built into the program actually produce cleaner output than loading the same picture into *Deluxe Paint II* or *Digipaint* and using their shrinking routines. *PIXmate* is the only program I have that would do the same job as well as **Iconize**. In this version, **Iconize** works only from the CLI and you'll have to experiment with it by throwing different parameters at it until you get the results you are after, but the documentation file adequately describes the procedure. Since icons on your standard workbench screen are only allowed four colors, a second program called **Recolor** is included in the archive to cut down a picture's color palette and bit-planes so the iconized output will make a legitimate icon file.

BOINGTHROWS.ARC

Sec 6 Num 10,045

Artist/Author: Marvin Landis (MLANDIS)

Bytes : 177,280



I've saved the best for last. All the other selections I've listed this time are utilities - programs to help you use your Amiga or enhance your working environment. This final one is just for fun. I haven't seen as many eyes light up, as many jaws drop when watching people watching an Amiga animation since **The Juggler**. The scene is a tile-floored basketball court, somewhere in *Amigaland*. **AmiGuy**, alone in the shadowy half-light, poises himself, shifts his weight from side to side, dribbles his *Boing* ball a few times and then with perfect form, tosses the ball through the hoop - the net swishes as the ball drops



Boing Throws

through it and bounces back to him where he repeats his flawless freethrows forever. Marv Landis, creator of *AmiGuy* (the *Sculpt* object character of **BoingThrows**) works as a computer systems analyst in New Mexico. Not long after buying *Sculpt-3D*, Marv started creating *AmiGuy*. First the head, then the body, and he soon released some rudimentary pictures and animations using his little humanoid. **BoingThrows** is Marv's Mona Lisa. **BoingThrows** was created entirely with *Sculpt-3D* and touch-up work thrown in by *Digi-Paint*. This 50 frame animation took approximately 325 hours for *Sculpt* to generate, yet it will run on a 512K Amiga. The Public Domain player program *NewMovie* by Eric Graham, author of *Sculpt 3D* is needed to view **BoingThrows**. Set your stack size to 25000 if you run *New Movie* from the CLI. Landis is working on some new *AmiGuy* animations. I can't wait to see what he comes up with next!

ABOUT THE AUTHOR:

Harv Laser, CBM*HARV on People/Link, is the founder and Senior Chairman (sysop) of the AmigaZone Club, and has been and Amiga 1000 owner since the machine made its debut in October, 1985. With two degrees in Art and 15 years in the international freight field, Harv is now a full time sysop, writer and Amiga consultant. He resides in the LA area.



BUGS IN AMIGADOS v1.2

Compiled by Bryce Nesbitt

Some bugs reported by: Hans Gregory, Matt Dillon, The Phantom Hacker, Mike Sokolewicz, Tomas Rokicki, and Andy Finkel
This list is by no means complete. There are other system bugs, most of them of interest only to programmers.
Portions of this article appeared previously in Robo City News.

KEYBOARD AND CLI

The *usal* keymap does not have the repeatable bit set for the A500/A2000's () / * and + keys. RETURN should repeat, ENTER not.

The easiest way to lock up a CLI is to type '*' then return. The system looks to the CLI for a program to run; good luck trying to type in executable code!

The second easiest way is to type *libs:diskfont.library* or *devs:keymaps/usal* (or any other unexecutable file).

"delete dir/#?" will delete all files in "dir", skipping locked ones. "delete dir all" will stop at the first locked file.

You can rename a directory into a child of itself: *rename devs/devs/printers/whoops*.

Type 'LoadWB' after hanging around in the CLI for awhile. Workbench will ask for each known volume in turn. <CANCEL> will not convince the Workbench to give up asking for a disk that may be long gone, lost, formatted, copied over or even relabeled.

LoadWB brings up a new invocation of the Workbench, the old one is not killed.

An undocumented feature is the "LoadWB -debug" option. This adds an invisible menu to the Workbench.

<*> Create an empty file in RAM:. Delete it. The block count will be incorrect. [eg: COPY * TO FISH, <CTRL><C>, DELETE FISH, repeat, INFO]. This one is a little touchy, but still does exist. You can create any negative block count you might desire, or even a zero count.

<*> If the first COPY that sets up the RAM: fails due to lack of memory, the block count will be similarly confused.

<*> RENAME allows duplicate file names in RAM:. [Create files 'fish' & 'frog'; rename one to match the name of the other]

WORKBENCH SCREEN

Starting with an interlaced Workbench, load one interlaced custom screen, and shove it to the back. Load one non-interlaced screen, shove it to the back. Now shove the Workbench to the back. You will be treated to fireworks.

Place a window in the center of the screen and start a window resize. Hit Left Amiga-N or M. Continue the resize PAST the top left

corner of the window. Fun, eh? (We hear that this is =RJ's favorite trick.)

When the system is nearly out of memory, menus can still be pulled down, but the actual graphics will not be drawn.

Intuition should skip ahead to the latest mouse position after pulling down a menu, rather than responding to each in turn. Same for rubberbanding window resize and dragging screens.

Dropping a dragged icon at EXACTLY the right time, into the space where a new disk icon is ABOUT to appear will cause that icon to 'stick' to the pointer even after the button is released. Moving the pointer to the title bar and clicking crashes the machine. V1.0, V1.1, & V1.2 repeatable.

Vigorous resizing of WB windows will trash the 'Gas gauge'

If some disk icons are on the "backdrop" and the .info file is rewritten, the backdrop icons will be left out of the .info list, and thus seem to disappear.

Typing an odd number in the INFO window for the stack size of a tool crashes the machine.

The system does not track pointer movement during such operations as window resize. This 'feels' sloppy. Some hyper-high priority task should keep the pointer visuals intact.

DISKS

Sticking a disk in a drive, then changing your mind and pulling the disk back out can severely confuse the system. It will continue to step and notice disk insertion, but DOS will never find out about a disk placed in that drive until a re-boot. Timing is critical, but repeatable; insert a new disk, wait for the light to come on and the first 'grind' as the head steps inward to block 80. Pull the disk out before it gets there. If you get a 'disk corrupt' requester you waited too long. Repeat, varying timing until the CLI INFO command locks up when getting the status of the 'dead' drive. This can also happen if your finger slips on the button while removing a disk, and that, in fact, is how I noticed this bug.

If you fill a disk exactly full, the bitmap will not be moved properly and a validate will be automatically done next time the disk is inserted.

GURUS AND ERRORS

Disk insertion should not retry a 'software error - task held' requester. The impending Guru number should also be listed.

Alerts display the text message in the system font, not a hard coded ROM font. If the default system font has been changed to a RAM based font and it becomes trashed, the alert will be unreadable. Not a bug, but a survivability concern.

Simply put, recoverable alerts are not recoverable if memory is installed at SC00000. This means *all* A2000 computers exhibit this bug. A patch will be made available on an upcoming Fish disk.

The Alt-Amiga combinations are not accepted when alerts want a mouse button press.

It is not documented that, during a Guru, pressing delete on a remote terminal connected to the serial port (at 9600 baud) will drop you into the ROM debugger.

In cases where <RETRY> or <CANCEL> on a requester is NOT a valid operation, the gadget should not be present, or selectable. Example: <RETRY> on most 'task held' requesters. <CANCEL> should <CANCEL> period. None of this asking twice stuff.

AMIGABASIC

END IF (SPACE)-If you have any spaces after an END IF it is a SYNTAX ERROR!

This line will cause a SYSTEM ERROR: *a=a+1:print a:for r=1 to 10:* Any line of code that ends with a ":" will cause major errors!

That editor is a disgrace!

Items marked with a bullet <*> are known to have been fixed in AmigaDOS version 1.3, which has already been made available to developers. We hope it will be available to users by the time you read this.

ABOUT THE AUTHOR:

Bryce Nesbitt is an overly photogenic freelance hacker who lives in Berkeley CA. Past achievements include the 1541 Flash! and Quicksilver disk interfaces for the C64. More recently, Bryce has been doing "emergency assault programming", which usually means working long hours to help companies whip late, buggy, incomplete programs into shape before shipping.



USER GROUP FORUM

by Len Lindsay

"What's good?"

"What's not?"

"How does it work?"

These are questions often heard at User Group meetings. With over 10,000 programs available for Commodore computers, looking for a good program to meet your needs can be quite frustrating.

DEMONSTRATIONS

There are many ways that a User Group can help its members in program selection and use. One popular method involves live software and hardware demonstrations using one or more computer systems set up at the meeting. To allow all the members to see the demonstrations, some groups have multiple monitors around the room, all hooked into one computer (Michigan Commodore Users Group does this). Other groups use a large screen TV setup (WINEPEG does this). It is even possible to get a special overhead projector set up to display the computer screen. (Check with the audio-visual department at your local school, college, or library.)

Demonstrations can be in-depth looks at popular programs. While most groups allow a member to bring a program to a meeting to demonstrate, the Lansing Area Commodore Club comes right out and asks for volunteers in their newsletter:

DEMONSTRATIONS -- If you have a program or a piece of hardware you think the club would like to see at the monthly general meeting, contact the Program Chairperson or any other

Board member to get "on" for the next meeting.

Lansing Area Commodore Club, PO Box 1065, East Lansing MI 48826-1065

Every now and then, your group may wish to have a side-by-side comparison between similar programs. Wordprocessor programs are particularly popular for side-by-side comparisons. Set up one meeting as a special wordprocessor review meeting, and invite members to bring in the wordprocessor that they use. Each member can briefly show how his wordprocessor works, and explain why they like it and some of its problems. Western Illinois Pet Users Group recently had its special meeting on wordprocessors. This was preceded by a writeup in their newsletter (they even referred members to the Spring/Summer 1987 issue of INFO that covered wordprocessors).

WIPUG c/o Edward L Mills, Route 5, Box 75, Quincy IL 62301

SIGS

Since many members in a users group have a wide variety of interests, a

monthly meeting might break up into smaller sections after a general presentation. Each small group would cover a specific area. Or independent meetings, separate from the general meeting, could be held. The Washington Area Commodore (WAC) group explains it well:

WAC has several smaller meetings during the month devoted to specific topics. These are good opportunities for both novices and experienced users to concentrate on fields of interest. These meetings are called Special Interest Groups, or SIGs. For details see the SIG News section of this newsletter.

Special interests could include: Geos, COMAL, Beginners, Telecommunications, Adventure Games, and so on.

WAC, PO Box 93, Mt. Vernon VA 22121

SPECIAL EVENTS

Your user group may also want to sponsor some special events. One example would be setting up a computer



system in a shopping mall to demonstrate its many uses to people who walk by. The Watertown Area Computer Users Group just had a special OPEN HOUSE at their airport. The club arranged to have a C64 system set up, and members were asked to bring a program to demonstrate. The public was



invited to come and see examples of a computer in use.

Watertown Area Computer Users Group, 229 Summit Ave, Watertown WI 53094

You could even go one step further, with two or more groups in the same area cooperating to have a local area conference. A good example is the co-operation between the Michigan Commodore Users Group, Inc and Windsor and area PET Educators Group. They have co-sponsored Micro- Mania International, a conference of demonstrations and educational presentations.

SPRITE.
MICHIGAN COMMODORE USERS GROUP, INC.

Michigan Commodore Users Group Inc., PO Box 539, East Detroit MI 48021

WINePEG
micro mania
international
M.C.U.G. 1985 P.E.G.

WINePEG, PO Box 454, Station A, Windsor Ontario N9A 6L7 Canada

THE NEWSLETTER

Of course, the group's newsletter is the place to summarize special presentations and keep members informed of special events. The newsletter also can print reviews and descriptions of programs of interest to its members. CUB Newsletter includes a section called *What's Hot and What's Not* by Jerry Pectol that I find particularly interesting each month. He rates the new game programs as they are released on a 100-

point scale, and includes a short paragraph about each. For December 1987 he presented a page called *Best of 1987!*. Here are his winners in four categories:

GAMES:

Mini Putt - Accolade

SPORTS GAMES:

California Games - Epyx

SIMULATIONS:

Apollo 18 - Accolade

ADVENTURES:

Might and Magic - New World

CUB c/o Gary Delzer, 1308 Hillsdale Rd., Bartlesville OK 74006

MAIL LIST

If your group has a newsletter, I'd like to see it. Please add me to your mailing list:

Len Lindsay
PO Box 6055
Madison, WI 53716-0055

As I pass along info from users groups, I will include their newsletter logos (space permitting) and their addresses. If you are in their area, drop them a line. They should be a good source of information.

ABOUT THE AUTHOR:

Len Lindsay is one of the true pioneers of Commodore computing, and we're happy to be welcoming him to the pages of INFO. He was the publisher of the PET Gazette (the first newsletter for Commodore users) which later became COMPUTE! Magazine. He is also the founder and the head guru of the COMAL Users Group. His "day job" is operating the computer system for the state of Wisconsin.



QuantumLink Mail From: Opus rocks

I would like to compliment you on your editorial in INFO # 18. Commodore doesn't get near enough credit for their computers. I'm a teenager and very involved with computers. When my family goes to get-togethers the men always start talking about computers and Commodore is never talked about. Once I got in on the conversation and some guy asked me what computer I owned. I told him that I had a C64 system and was saving my money for an Amiga. Most of them laughed and someone said to me, "Nice start." It isn't fair!!!!

You could list off for your "relatives" (are you sure you aren't adopted?) some of the other folks who are getting a "Nice Start" with Commodore equipment: Ohio State University, Frank Zappa, The Museum of Modern Art, Mt. Palomar, NASA, the U.S. Navy, Herbie Hancock, B.B. King, Oingo Boingo, "Max Headroom", Stephen Spielberg, and a multitude of artists, businesses, local cable TV stations, music studios, and more! I think you're in pretty good company. -Mark & Benn

QuantumLink Mail From: MissingLink

On page 74 of issue #18... who WAS that Arby Fuller guy??

Arby has been with INFO since its inception--he reviewed Flexfile 2.1 in INFO #1. He comes and goes like the wind, wears a black domino mask, and leaves a trail of silver bullets wherever he's been. (We suspect it's so he can find his way back.) No one knows whither he goes, and whither he comes from. He's a mysterious kind of a guy, that Arby. -Mark & Benn



geoStuff

by Don Romero

Like I said last issue, I got a fistful of disks from *Mystic Jim* and his shareware cohorts--nine disks (if I can count) with lots of programs, fonts, graphics, and smatterings of documentation. I've only room for the highlights! I've also included two disks of graphics from *Lamb Art & Design* for consideration, and that will about do it for this issue.

INTRO DISK #2

This is the first disk for *Mystic Jim* shareware users. On it, as with most, comes an assortment of useful graphic aids, desk accessories, programs and documentation. Programs on the disk include **auto preferences** (from *Cosmac*) which when installed on the boot disk will automatically call up preferences upon booting so you can set the time, etc.; and there is **o'clock**, which is a constant time display modified from "GEOS Inside And Out" (Abacus, 1987). **Geos return** and **BASIC stop** are routines for returning to GEOS from BASIC, written by *Assassin 64*.

Desk accessories include **change input** and **change printer** (they do just what they sound like) and **quick dataset** which avoids going to the clock to do guess what?

Graphic aids include a **greygrid** that does not show on printout; **cross grid**, which will not show on Okimate printouts; and **metric grid** (*GeoPaint* graph paper). **Grid cards** is a photo album with sample splashes from all three.

Okicolor is a *GeoPaint* file showing the color combos the Okimate printer driver supports and how they can be combined to overcome GEOS' limited color support. **Color grid** is a similar file for other color printers.

ACCESSORY DISK #3

I had some disk error problems with this one and have not gotten around to contacting *Mystic Jim* about a replacement disk, but will let you know

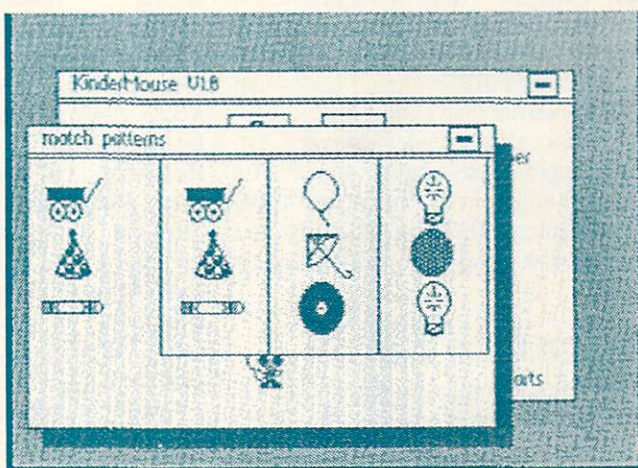
what to expect from customer support when I get around to it. The fonts that I couldn't open were **oxford**, **mystic**, **script**, **writing**, **zapf**, **paintbrush** and **balloon**. The remaining working stuff included a **C128 keyboard** patch for using some of its extra features under *GEOS 64*, a number of other fonts, and a huge 'almost' font called **megabanner** (caps A-Z only) in photo album form. All are documented.

The working fonts include **Dvorak** (10pt, which also 'converts' the keyboard); **Greek** (12pt), **Esperanto** (10pt, once promoted as a "universal" language); **banner** (36pt, caps only); **IBM** (9pt); **fill48** (48pt, caps only in two parts); and **trek** (36pt, in four parts).

ACCESSORY DISK #4

Primarily for the programmer, this disk has utilities developed out of necessity back when *GEOS* development tools were few and far between, and documentation was often unreliable or unavailable. For the most part they are written in BASIC, and several (**geoicon**, **geosplitter** and **geobooter**) also appear on the *GeoICON II* disk. (See below). Several are public domain utilities: **disk doctor**, **micromon**, and **sprint**. There is also a modified version of **file master**, from the book "GEOS Inside and Out" (Abacus, 1987); corrections for BSW's "GEOS Programmers Reference Guide" (Bantam, 1987); and **convert v1.4** (see *Disk #5* below) is also included.

Geohacker is a utility written by *Mystic Jim* for removing the copy protection from *GEOS* programs and editing serial



Kindermouse

codes. This becomes very useful when you've improperly installed a *GEOS* disk and it refuses to boot or run, etc.

Spelunker is a simple, buggy desk accessory written by Tony Reynolds for examining the 64's memory under *GEOS*, and includes source code and documentation. **Dispmem**, by Lynn Kirby, is a polished, working version of *Spelunker*.

SHAREWARE BBS DISK #5

The *Mystic Jim* subscriber naturally needs a term program for calling the *Mystic Jim* Shareware BBS. *Disk #5* provides three: **multi term 4.5**, which is the most feature-laden, **fastterm**, the easiest to use (and the most fun, with its array of custom character sets) and **mblastterm**, which was written by *Master Blaster* and is uniquely *GEOS* oriented, as it supports *USR* file transfer. Mark that none of these is a true 'GeoTerm'--they boot from *GEOS* but do not run under it.

I was a little disappointed that none of the three terms supported the RAM expander, but was most surprised that I had to unplug the 1764 *REU* before I could get *mblastterm* to work at all (using a 1670 modem). *Mblastterm* also failed to upload test files via *Xmodem* to a local



BBS. *Multi term 4.5* is a nice freeware term program by Steve Thompson that's loaded with features, including a modem nibbler written by Andy Kovacs. Both *Multi Term* and *FasTerm* support CBM color graphic BBS systems in some form, though I was unable to test the extent. (No local color BBSs around here - and nobody is sorrier than I am.)

The disk also includes *convert 1.4*, which appears on several *Mystic Jim* disks and differs from v1.3 in that it will SEQUentialize *GEOS* applications and font files, too. You won't find this one on *QLink*.

GRAPHIC DISK #6

Disk #6 includes an array of graphic translation utilities. Documentation would be a welcome improvement to this disk.

Imagecon: This *GEOS*-bootable BASIC utility was written by *Mystic Jim* and converts virtually any hires or multicolor graphic file to *GEOS* format. Fore- and background colors can be selected, and the user can preview results before final conversion. As with all multi-color to hires conversions, color data is lost, but the picture can be retinted easily with *GeoPaint*.

Geoshop and geovert: I could not get either of these to work, and without documentation I could not figure out what the problem was.

Pattern editor and set pattern: This interesting hack by James Hastings-Trew uses *GeoPaint* to edit the 32 patterns *GEOS* supports. *Pattern editor* is a 152 block *GeoPaint* file that serves as both documentation and instruction sheet with demo. *Set pattern* is a 2 block Desk Accessory which replaces the default patterns with patterns it finds on specific parts of the screen.

This disk also contains a number of public domain graphic conversion utilities which have been iconed and *GEOtized*. **Macgeopaint** by James Hastings-Trew converts *MacPaint* files into (big!) *GeoPaint* format files and was covered in depth in a previous column. **Ps/pm/nr** interchanges graphics among the *Printshop*, *PrintMaster* and the *Newsroom* formats. **Pshop/doodle** converts *PrintShop* screens to *Doodle* format. **Koala/sketch** inter-

changes *Koala* and *Super Sketch* formats. **Graphix** interchanges file formats among *Doodle*, *Flexidraw* (monochrome only) *Print Shop* and *Koala Painter*. And finally, **allpix** is a shareware package from Richard Lee Stockton (and friends) which will convert just about any format (including *CADGEM*) to just about any other and has some editing functions.

GEOICON II

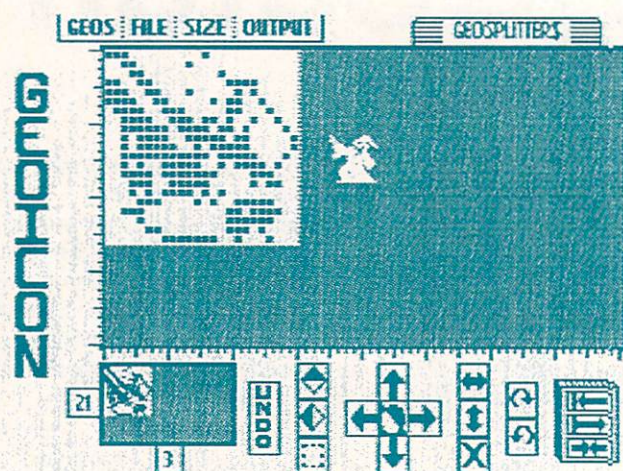
Most of the programs on this disk were authored by Bill Coleman - alias *Master Blaster*. Besides programming, he is a fixture on *Genie* and writes a regular column for *GeoWorld*.

Geoicon is a true *GEOS* program for developing icon data *GEOS* header blocks. The user interface includes buttons for positioning, mirroring, reversing the field, and drawing a box border around the icon the user designs. For some reason, the drawing cursor never appeared in my copy, which made it very difficult to draw. *GeoICON* converts the finished icon into hex data which can be dumped to printer or screen, or to disk. From disk, the data can be APPENDED or MERGED (utilities included) for use in *GEOS* headers.

Geosplitter takes an assembled program and converts it into a *GEOS* program. It is not a *GEOS* program itself and runs in normal 64 or 128 mode. **Grftest** is sample source code.

Geobooter and gblinker: The latter utility merges the program you've written with a copy of *GeoBooter* directly on disk. The resultant program, when run, will then convert itself automatically into a *GEOS* program.

The current version *Geoicon II* also includes **geoheader**, a *GEOS* program for editing header blocks, naturally. The com-



Geoicon II

bined price is \$24.95 with discounts for *Mystic Jim* subscribers.

RANDY'S GEODISK STUFF

This disk is available from *Mystic Jim* as **Randy's roundup**, *Disk R* or directly from Randy Winchester as **Randy's geodisk**. The latter version came to me with a nice diskcase with softcovered laser-printed docs, which are also included on disk.

Seq->text scrap: This is the main program on Randy's disk. Currently in version 2.1, it converts virtually any CBM SEQ file into a *GEOS* text scrap. Features include dual drive support, ASCII conversion and an option to dump to the printer during conversion. Since the text scrap is universally used in *GEOS*, it's quite possible with this program to patch text from a SEQ text or source code file directly into applications (*GeoPublish* and *GeoProgrammer*, for example) without using *GeoWrite* or *TextGrabber*. One minor drawback--*GEOS* only allows one text scrap per disk, and since *seq->text scrap* does not run under *GEOS* the *Text Manager* is not available, making multiple conversions a little awkward.

Notes->album: Similar to the above, but perhaps even more useful. It converts virtually useless *GEOS* notepad files into text album entries which can then be pasted into application documents. You'll no longer have to drag out *GeoWrite* whenever you want to post a few notes that you can use later.

Sectors->data and data->sectors: Two BASIC utilities for moving data between disk sectors and BASIC DATA statements. Very useful for moving REL and random files through a modem. **Sectordump** is similar to *sectors->data* but formats the output for printer consumption; and **icon grabber**, by Joe Buckley, is also similar but captures icon data from GEOS header blocks.

The disk includes some nice little bonuses, too: 'cheatsheet' template *Geopaint* files, three modest PD photo albums and a help file for using *convert* and *arc* together.

Randy says that *geodisk* is well in the works, with some new graphics and utilities for the 128 mode (with full 1571 support.)

Write to RANDY WINCHESTER, PO Box 1074, Cambridge, MA 02142.

GEOKIDS VOL 1

geokids Vol 1 (\$11.95) is what the GEOS programming utilities are all about. It consists of two programs written by Terry R. Mullett: **Kindermouse** and **Simon's song**, and documentation on disk.

Kindermouse is an excellent educational program in which the young student uses the mouse (more precisely, the tail of the mouse sprite) and sometimes the keyboard to input selections. In all there are eight tasks: *uppercase/lowercase* (matching game), *missing letter*, *missing number*, *match shapes*, *match patterns*, *how many*, *count it out*, and *how many parts*. When the user is correct in his selection he gets a happy face and a "ding ding". When he misses, he gets a sad face and a prompt to try again. There is no time limit, no scoring and the student is free to change tasks at any time. The graphics are interesting and the user interface easy to use and understand. The recommended age group is 4 to 7.

Simon's song is a sound and graphics memory game like the ol' Milton Bradley electric toy of similar name. Like *kindermouse*, there is no score or time limit, but here the user can set the difficulty level. I really missed having a scoring option. This is also the first program I have ever seen to make use of a *Print Shop* kaleidoscope pattern for a background. Very nice.

MYSTIC JIM SUMMARY

Very quickly, the two other disks were **Printer Accessories Disk #7**, consisting of 33 printer drivers and 11 *GeoCable* drivers. **Mystic Jim's Disk #8** contains **Tim's Timer**, with the plans, instructions and programs for building and using a battery backed clock/calendar for the 64 and 128. *Tim's Timer* can also now be purchased as a finished hardware product in 64 and 128 internal (\$44.95) and joyport #2 (\$49.95) versions.

The basic cost for becoming a *Mystic Jim* subscriber is now \$50. The basic package includes a selection of introductory disks, a six month subscription to **GeoWorld**, special access to the **Mystic Jim BBS** and discounts for programs distributed under the *Mystic Jim* aegis. Viewed in toto, it's a pretty fair price.

Prices on some of the other packages have varied, too. For example, the *GEOICON II* disk originally listed for \$19.95, but more recently *Geoheader* (a program for editing header blocks) has been added and the price raised to \$24.95 with about a 30% discount offered to MJ subscribers, making it \$17.95. To get more information and the latest prices write to MYSTIC JIM, 2388 Grape, Denver, CO 80207 or call (303) 321-3223 voice. The BBS number is (303) 321-8954.

It should be interesting to see how the *Mystic Jim* venture evolves with the release of **GeoProgrammer** (BSW, \$69.95) and **BeckerBASIC** (Abacus Software, \$49.95) possibly making many of the old programming tools somewhat passe.

GRAPHICS A LA LAMB

GRAPHIC IDEAS Vol 1 and 2 are neither shareware nor part of the *Mystic Jim* collection. They come from the mouse of Susan J. Lamb, who has been a commercial artist for over twenty years. And they show in both the quality and the subject matter of her work on these doublesided floppy disks.

Volume One consists of 13 *GeoPaint* files with elaborate border designs (two each). The smaller inner borders can be expanded and the larger borders reduced in size by cutting and pasting. Documen-

tation which, among other things, has tips for resizing, was not included with the disks that INFO received. The *Art Deco* designs seem to work the best (*Art Deco 2* was my favorite.) These borders are all a little too 'heavy' and elaborate for a newsletter page format, but would be excellent for creating signs and posters or framing your own *GEOS* art.

Volume Two consists of 16 *GeoPaint* files chock full of smaller boxes and frames, coupons, arrows, shapes, text balloons and bursts, text graphics (not ASCII graphics, but pictures of everyday items with open spaces for adding text), shapes, eye-grabbing headlines and other assorted graphics which can be cut and pasted into other *GEOS* documents. Sometimes the files are so chocked together that getting a clean cut or copy is impossible with *GeoPaint*'s inflexible rectangular edit field. (Where's that Mac edit lasso?!) In fact, some files might better have been handled as photo albums, although *GeoPaint*'s preview mode makes it easier to find what you are looking for.

Each disk is \$19.95, or both for \$35 - a little steep perhaps for the average *GEOS* user. The address for inquiries and/or orders is: LAMB ART & DESIGN, 1764 Avenue B, Yuma, AZ 85364.

That's It! (And don't you think it should be?) To paraphrase the great bard of *LateNight*: more *GEOS* information than INFO readers will probably be allowed to have.

Next time: *GeoCalc*, *GeoFile v1.2*, *GeoSpell*, *GeoThis*, and *GeoThat*!

ABOUT THE AUTHOR:

INFO Contributing Editor Don Romero is the editor of the Western Indiana Commodore Users Group

newsletter, Word Wrap. He is also the devilishly clever mind behind the C.H.U.M.P. magazine parody in issue #15.



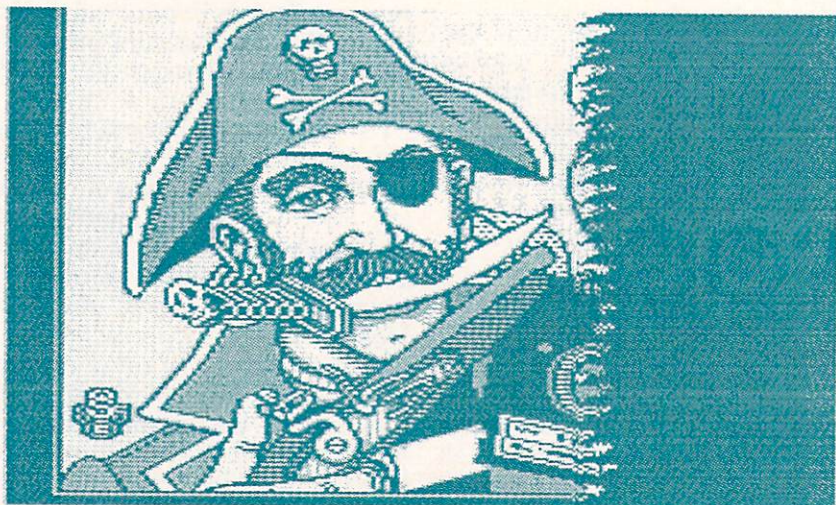
Deep in the moonlit jungle, the drumming reaches a frenzied climax as the Witch Doctor raises feathered bones and flings them into the fire. The flash of a small explosion clears the trees of monkeys and birds. In the dim silence a luminous sphere lifts from the multicolored smoke. Shimmering on its surface is the image of a squat beige box. GOOD HEAVENS! IT'S A COMMODORE 64!

WHO DO THAT VOODOO?

by Sue Albert

YOU DO!

Yes the humble C64 has nudged its way into the realm of desktop slideshow presentations, video titling, and exciting special effects. After half a decade, experienced programmers have developed ways to switch, squeeze, and crunch those last idle bits into previously unimagined performance. When the juggling reaches an impasse, they cleverly engage the user as a "memory expansion unit". In other words, what the computer can't do...you do! It's up to you whether the gain is worth the pain when the 64 is pushed to overachieve.



Screen from Slideshow Creator showing dissolve.

INFO RATED



THE SLIDESHOW CREATOR \$14.95
Software Support International
2700 NE Andresen Road
Vancouver, WA 98661
1-206-695-1005

This unprotected software makes slide show construction a snap using Doodle or Koala format graphics. Can only be used with the Super Snapshot cartridge (\$54.95) in place. Creates a smooth, breakless, slideshow with minimum disk loading. Features wipes, timed screens, and horizontal text scroll with options on all. Projector program can be shared with friends or clients. Slideshow and Snapshot are a power partnership. SA

One way around computer limitations is the hardware add-on. The *Super Snapshot* cartridge by LMS Tech, with its updatable ROM chip, *Turbo DOS* loading, myriad disk utilities, disk backup capacity, and abil-

ity to capture, save, and print program screens, now has its own software add-on. The inexpensive and unprotected *Slideshow Creator*, \$14.95, works exclusively in conjunction with the *Super Snapshot* (\$54.95). While this is in the higher reaches for some folks, the cost is well balanced by ease of use, flexibility, and high quality results.

Cartridge and software together become a little "Cuisinart" for your Commodore, performing many of the small chores involved in assembling a slide show with speed and efficiency. Built-in are four wipes (shutter, dissolve, pop, and slide) which can be displayed at the end and/or beginning of each graphic frame. There is a horizontal text scroll that can be placed anywhere on the screen in front of or behind the graphic, with a text buffer that holds 228 characters. There are 10 fonts, with a choice of large or small sizes in 16 colors.

The first creative step, made easy by *Super Snapshot*, is saving a group of

Hires or Multicolor, *Koala* or *Doodle* format graphics, or screens copied with *Super Snapshot*. After loading the *Slideshow Creator* (with the cartridge in place), each graphic can be modified in many ways. Display time can be changed from 0 to 4 minutes 59 seconds, until the end of text scroll, or until the spacebar is pressed. After optional insertion of wipes and scroll, the graphic is economically compressed to 16-17 blocks (B&W) or 25-30 blocks (color) and saved to a disk containing the freely distributable *Projector* viewing program.

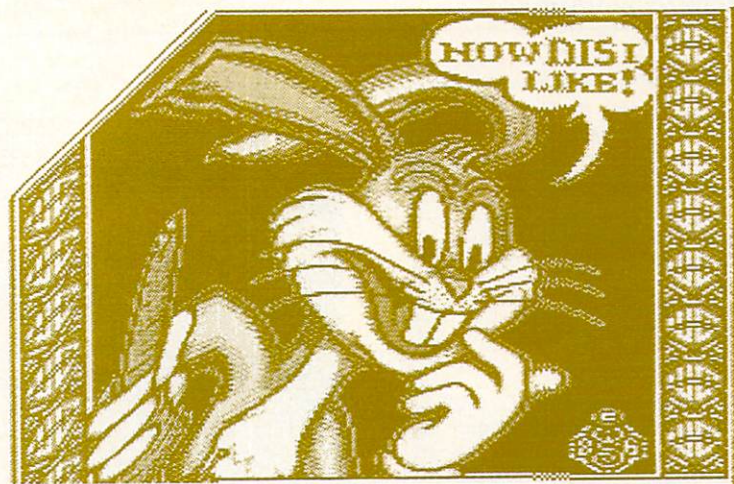
The *Projector* presentation is slick, with no screen blanking or breaks, and only a 7-9 second loading time with each screen. A short initial display requests drive type, number of drives (up to four) and designations. The *Super Snapshot* ROM update released in February adds *TURBO DOS* features for the roomier 1581 drive.

The briefest of manuals is all you

need with the *Slideshow Creator*...and all you get! The seven small, picture-less, pages do include instruction on programming slide presentations into your own BASIC or ML programs, and are assisted by a demo on disk with artwork by Wayne Schmidt. There is intriguing mention of daisy chaining drives for presentations, but no details on procedures.

Slideshow Creator has a lot of potential for creative experimentation. Timing frames very rapidly could conceivably even produce animation. I discovered a properly colored text scroll framed behind the open mouth or eyes in a color graphic to be a surprising effect.

Snapshot + Slideshow = a dynamic duo!



Screen captured during smooth slide-up.

INFO RATED

★
★
★
★

SCREEN F/X \$34.95
 Solutions Unlimited
 P.O.Box 177
 Dobbs Ferry, NY 10522-0177
 914-693-3496

Screen F/X is a slide show, video titling, and special effects creation tool, that wins honors for flexibility and features, but some demerits for complexity. The well-organized and indexed manual needs visuals and a few less "jargoned" explanations. The limits, however, to what a dedicated user could produce with F/X are beyond the horizon, just this side of an Amiga. SA

Solutions Unlimited specializes in feature-intensive graphics utilities like *Billboard Maker* and *Icon Factory*. *Screen F/X* is their tour-de-force of special effects and text animation. *Screen F/X*, like *Slideshow Creator*, produces Hires or Multicolor slide shows, but with a greater selection of screen wipes, in addition to impressive

moving screen effects. Three individual but integrated programs reside on one side of a disk equipped with a rapid loader.

Though I found myself a bit overwhelmed at first by the choices and complex terminology, it was a pleasant surprise to find that, with time and patience, most functions became quite clear. There is a short tutorial to help you test the waters, and a safety net of escapes and undos for the novice/bumbler. Experimenting and learning are fairly painless, but still I didn't stray far from the manual. With so many options, *Screen F/X* would be difficult to pack whole into your memory.

The powerful *F/X Screen Editor* is a windowed module where you build a structured series of visual events called a script. You can import graphics intact on either of two screens from *Doodle*, *Flexidraw*, *Computer Eyes*, *Print Shop*, *Screen Magic*, *Koala*, *Supersketch*, *Animation Station*, *Blazing Paddles*, and *Billboard Maker*. Then the fun begins. What to do? What to do?

Build a border, color it, pattern it, or fill it with revolving dots. Size the graphic, move it, fade to another flashing graphic, have some colorful text move in from the side and dissolve. Add and time multiple loops or create key-in user information windows and

subroutines. At any time view, modify, or save your script. Link several scripts together for longer presentations.

The *F/X Processor* program module allows cut, paste, and overlay, of *Flexi-fonts* or any standard Commodore Programmable Character Set with graphics from all the above mentioned programs. Though the program operates as stated in the manual, only several confused hours proved it. I hate to nag, but here is another candidate for "*Graphics Manuals from Hell*", with its skimpy procedure descriptions and only two (2) illustrations.

Processor results were a bit disappointing. I could only load small *Flexi-fonts* and text becomes a solid "label" covering the picture beneath. It would work well for a collage of *Print Shop*, *PrintMaster* or *Newsroom* graphics. The display screen background and foreground colors can be varied, and the finished screen saved for loading into the *Editor*.

The *Setup* program is a very complete disk utility for formatting work disks and making auto-run disks that will display your show and then load another program. It will also copy shows and files.

Screen F/X doesn't turn your 64 into an Amiga, but it is an admirable tool for accessing the maximum graphics power in the beige box.



INFO RATED

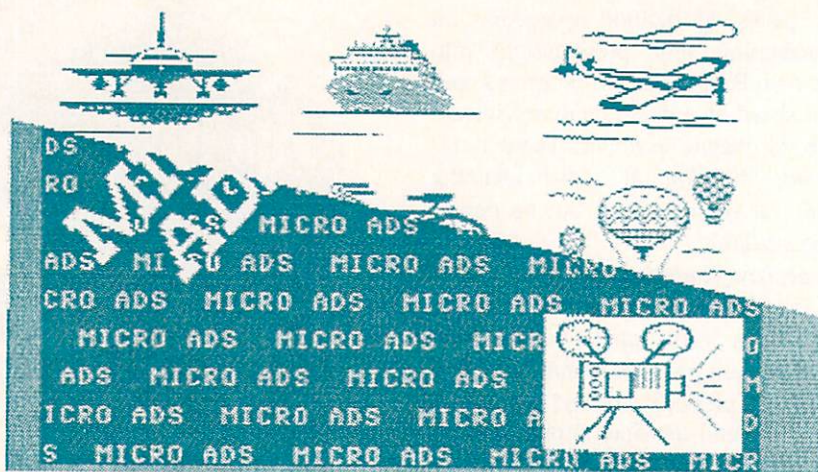


MICROADS MAGIC/VIDEO \$14.95
MicroAds
Dennis Reddington
145 East Norman Drive
Palatine, IL 60067
312-991-9415

Good, down-home BASIC programming that's easy to understand, simple to use, and gets results. Microads Magic/Video uses Screen Magic graphics from Broderbund's Print Shop to produce slide shows for video titling. Lots of features on lots of individual programs, plus a disk of borders, and two demo disks. Few undos, more user labor. Unprotected. Sold mail order only. Such a bargain! SA

MicroAds is the brainchild of Dennis Reddington, a computer professional with many years of experience on mainframes and minis. For five years he has relaxed at home writing programs, first on a TI 99/4A, then a C64, and now on a C128. His latest program, which he self-markets through mail order, is *MicroAds' Magic/Video*. Originally conceived as a video advertising tool, he finds most of his customers are video professionals who use the program to title tapes of weddings and other events.

MicroAds sells for a modest \$14.95, including full documentation and five unprotected disks. The two work disks contain many small utilities written in BASIC, several specific to the 128. Utilizing *Screen Magic* from Broderbund's *Print Shop* program, you can combine, overlay, and color the *Print Shop* fonts and graphics, tilt text or a graphic, enlarge a graphic to full screen size, and place as many as nine separately colored graphics onscreen at once. These "still" screens can be dressed up with several wipes and fades in the included slide show generator. Simplicity itself,



Screen from *MicroAds*.

MicroAds is direct and very easy to understand and use.

Also included in the package is a disk of ready-made backgrounds and borders, and two demo slide show disks, one with digitized PD graphics. Like most independent programmers, Reddington keeps improving and adding to his program. Available for use with *MicroAds* and the 128 only, are three auxiliary disks for coloring graphic screens from *GEOS*, *Newsroom*, and *PrintMaster Plus*.

MicroAds can be a bit too simple. There is no directory access when you load files, which can be aggravating when making consecutive loads and saves. There are few escapes or undos, so a wrong choice means you quit and reload. Still, *MicroAds* does the job well, and for many this will be all that's needed to create a video title screen for "Baby's First Birthday" or an intro to a slide show of personal computer art.

UNCLEAR

Okay now that we can create whiz-bang slide shows and beautiful title screens, how do we get them from our computer onto video tape via our VCR? Don't ask me...and don't look in the manuals for

guidance. In the presumption of "osmotic" knowledge or simple oversight, both *Screen F/X* and *MicroAds* leave us to our own devices, literally! Though it's a simple process once you learn how, here's where a few clear diagrams, some jargon-free instruction, and a pat on the head are minimum requirements.

BEDAZZLED

With these powerful programs loose in the creative Commodore world, I anticipate some dazzling downloads from *QLink* as I eagerly exchange my writer's bathrobe for an artist's smock.

ABOUT THE AUTHOR:

A completely right-brained artist, the combination of a gift C64 in '83, with EasyScript inspired this grandmother to write software reviews from the viewpoint of the total end user. Last year she self-published a book of poetry and computer drawings (reviewed by Art Com Electronic Network on The WELL), and recently designed a picto-font for Fontmaster II available as shareware on *QLink*. You can EMail her on *QLink* as Suzart.



PROMENADE

by Robert W. Baker

Here are two products that really go hand-in-hand. *Promenade C1* is a sophisticated EPROM programmer that plugs into the User Port of your Commodore. *Capture* is a cartridge-based program snapshotter that lets you create cartridges of almost any program that can be loaded into your C64. In addition, Jason-Ranheim offers a wide selection of cartridge kits, EPROMs and other supplementary supplies at reasonable prices.

PROMENADE C1

Promenade is an EPROM (Erasable Programmable Read-Only Memory) burner. The unit allows programming or reading any byte, group of bytes, or an entire EPROM at random. The 28-pin professional Zero Insertion Force (ZIF) Textool chip socket accepts a wide range of EPROM types, including most 24 pin chips. The instruction manual lists programming parameters for almost 30 different chips, including the popular 2716 to 27256 series and their various programming voltage variations.

When programming EPROMs, you can choose among one of four programming pulse durations or use one of three intelligent methods to cut programming time by as much as 95% for the large chips. Two of the three intelligent methods follow the Intel recommendations for programming the 27256 or 2764 and 27128 chips. The other intelligent method was developed specifically by Jason-Ranheim and offers an even greater reduction in programming times than the original Intel methods.

The nice thing about using the *Promenade* is that you don't have to be an expert to get the job done. The operating software supplied on disk provides a number of commands for copying data to and from EPROMs, and even erasing electrically erasable EEPROMs. The commands are easy to use and provide unlimited flexibility.



Even nicer, you can use the *Promenade* just like a disk drive. Using device #16, you can save programs and data in EPROMs. Once stored in EPROMs, the files can be loaded or accessed just like disk files, and you can even display a directory of what's in them. Everything is done using the normal LOAD, SAVE, OPEN, GET#, INPUT#, PRINT#, CMD#, and CLOSE commands, with a few new parameters.

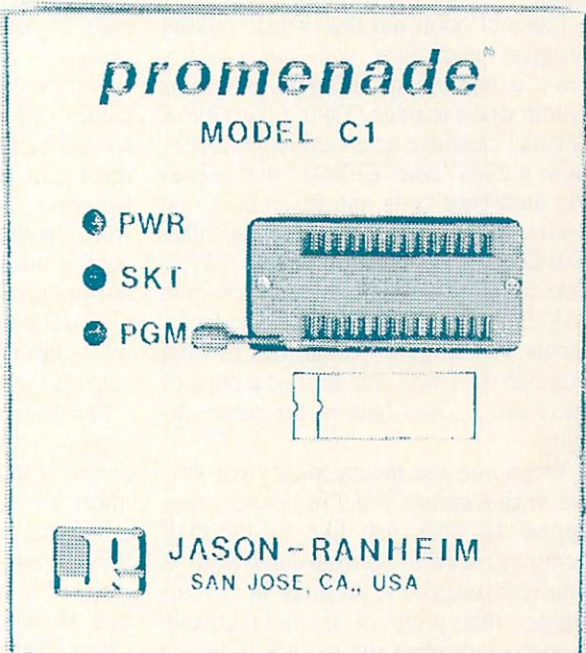
The *Promenade* unit itself is extremely well made, housed in an aluminum cartridge that plugs into the User Port. The unit even fits on an SX-64 without much trouble, but you'll have to remove your 80 column monitor cable if

you want to plug it into a Commodore 128 system. On all systems, the *Promenade* unit draws its power from the main computer system via the User Port connections. Three different colored LEDs provide indication of proper operation when the unit is in use.

The documentation is good and includes complete descriptions of all the features and operations in the 20 page instruction manual. There's even a detailed description of how things are stored in the EPROM chips when accessed as device #16, plus information on how the intelligent programming methods work, and more.

CAPTURE

The *Capture* cartridge plugs into the Commodore 64 or 128 cartridge slot and does nothing until you press its single button. Once activated, it provides a simple way to produce program disks and EPROM cartridges containing "snapshot" copies of



*The aluminum-clad promenade.
Notice ZIF socket with lever.*



... Promenade continued

almost any program you can load into your computer. It can also display a map showing what areas of memory are being used by the program. The cartridge claims that it cannot be detected by most software packages, and I did not encounter any problems during my testing.

Capture will neatly save everything required to restore your computer to the 'captured' state. When saved onto disk, several files will be created; these include a boot program, an I/O information file, and any number of RAM files. One RAM file is saved for every 2K byte area of memory used by the program. To conserve directory space or load time, the RAM files can be manually combined later if desired.

When the *Capture* cartridge is used in conjunction with the *Promenade C1* EPROM programmer, the system provides a foolproof method of creating auto-start cartridges. The procedure is very simple, and all required information is prompted by the cartridge-based software. Jason-Ranheim even offers an assortment of CPR family cartridge kits with everything you need to put together your own cartridges for around \$30 each.

I should point out that when creating program cartridges you can actually have a number of different programs within one cartridge. Taking the *CPR-3* "blank" cartridge as an example, it contains a 2764 'core' EPROM that houses the auto-boot code and information on each program stored in the cartridge EPROMs. There are also two 27256 data EPROMs that allow room for up to 64K bytes of storage in 2K byte increments. Just to give you an idea of what you can do, I was able to save a copy of *ARC* and *ULTRA* both in the same cartridge.

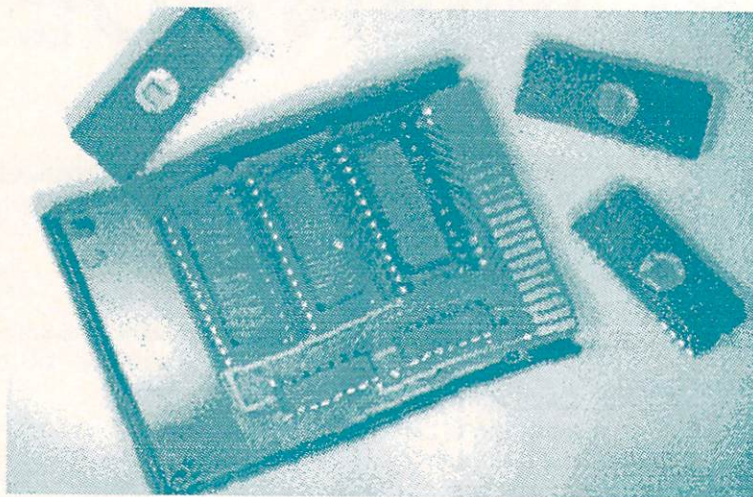
When you use the cartridges you create with *Capture* and *Promenade*, they appear to work just like off-the-shelf commercial cartridge-based software. If you only saved one program in the cartridge, that program is automatically auto-booted when the system is turned on. When you've saved more than one program in a cartridge, a menu is dis-

played showing the available programs and you simply hit one key to select the desired program to be run.

The main difference between cartridges created using this system and true cartridge-based software is that the programs are actually moved back into the computer system RAM before they are executed. The software is not executed from the cartridge EPROMs. However, this load time is almost instantaneous and hardly noticeable. My copy of *ARC* now loads in the blink of an eye.

For those who want to get fancy and create true cartridge-based software or special EPROMs for use in other equipment, everything you need is provided. However, you'll have to do more of the work yourself, and you'll probably need a machine language monitor. The documentation recommends using *HESMON* or *HESMON 64*, since that is what Jason-Ranheim has used in the past during all of their development.

The documentation provided with the *Capture* cartridge is brief, about 10 pages in length, but provides plenty of information, considering the self-prompting code within the cartridge. The manual does contain some suggestions on how to use the capture mode and when to capture a particular application. There's also a description of the file structures created on disk when a program is captured.



The Capture cartridge with EPROMs and PC board.

Don't forget you can use each of these products independently, and they both offer very comprehensive features for their intended purpose. However, when the *Promenade* and *Capture* cartridges are combined, they provide a foolproof and very easy-to-use cartridge building system for the average user.

PRICE LIST:

Promenade \$99.50

Capture \$39.95

CPR-3 blank cartridge \$29.95

DR EPROM eraser \$34.95

All four \$199.95

Bare boards, cartridge cases, etc., are also available separately.

ABOUT THE AUTHOR:

Robert Baker runs the popular New Products forum on QuantumLink. He has written extensively about personal computers since the early days of this industry, and his credits include *Byte*, *Compute!* and *Commodore* magazines. Bob's articles were a regular feature in the pages of *The Midnight Software Gazette*. You can reach him on Qlink as RBaker.



BANK STREET FILER

by Dr. Elizabeth Kaspar

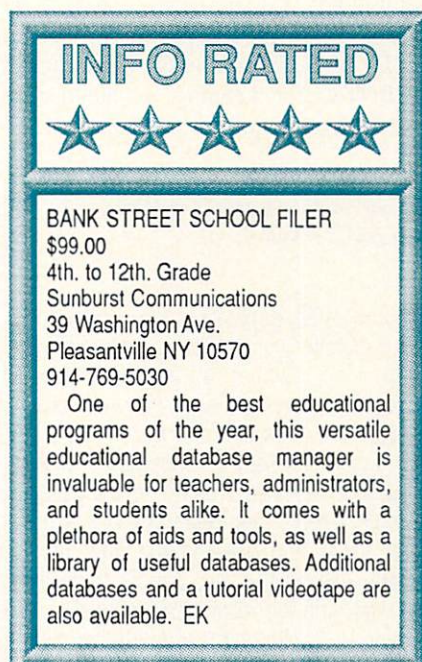
High quality educational software has been the hallmark of Sunburst Communications from its beginning, but now they have surpassed their own record of excellence with *Bank Street School Filer*. It will, I predict, win the award for Outstanding Educational Program for 1987. It is so easy to use that fourth graders will have no problem learning it, yet so sophisticated, so powerful, that school administrators, teachers—all adults—will find it tremendously valuable.

WHY BOTHER?

Why, a teacher may ask, should I take precious classroom time to teach students to use a database? There are many reasons, but three major ones justify the time involved. First, a major complaint of today's schools is that they do not teach students how to think. The tasks of setting up a database and using one that's ready-made require a student to use application, analysis, and often, synthesis and evaluation. High level decisions must be made regarding categorization and organization. For example: what are the major distinguishing characteristics of different types of whales, dinosaurs or books? Are particular characteristics mutually exclusive (a or b), or not (a and b)? Will only one characteristic be sufficient to separate one sub-species or one category from another?

Second, students learn the advantages of organizing and categorizing. They learn by experience that when a structure is devised for a body of knowledge, the result is clearer comprehension and a greater perspective of the whole; a kind of mental map is provided. Too often, students learn bits and pieces of information, never realizing how they fit together in an integrated whole. A database makes the whole immediately apparent.

Third, the understanding of databases in general is necessary in today's world. Students must prepare for use of the



rapidly expanding national database networks, such as Dialogue, for library research. On-line searching is available already in most college and university libraries, and in many high schools. Within a few years, it will be commonplace even at the junior high and elementary levels. State and national databases are available now to a variety of professionals. Recently I found an agriculture teacher in a rural high school of 250 students who was a member of the state-wide agricultural network; his classroom computer was on-line receiving the latest agricultural information.

There are other benefits, too—perhaps less important, but nonetheless worth mentioning. Teachers who have taught their students to construct databases report that they are excellent motivators, that students enjoy setting them up for their own collections as well as for classroom use. Middle school students especially are collectors—baseball cards, dolls, books by particular authors, etc., and they realize the value of cataloging them while enjoying the process and learning from it.

BANK STREET FILER

Sunburst has provided so many materials to assist the user of *Bank Street Filer* that even a person who has never touched a computer will find the process easy to learn. The screen set-up closely resembles that of *Bank Street Writer*, with easy-to-follow prompts at the top. To this has been added windows along the bottom which appear whenever a prompt is selected. This makes a manual almost unnecessary.

Sunburst has provided a tutorial disk, six lessons with such titles as "Making a Form", "Adding Records", "Browsing Through Data", and "Finding Records." There is also a 107 page, spiral-bound reference manual. It explains what a database is and what one can do, and lists the steps necessary to set one up. Drawings of the screens, with detailed explanations for each possible command, are easy to follow. A glossary at the end of the manual defines terms related to databases and to the computer. As if this were not enough, Sunburst also has included the tutorial disk and a handy quick-reference card.

In addition, Sunburst has prepared their usual excellent teacher's manual in the familiar orange, sturdy plastic 3-ring binder. This one, with 166 pages and tabbed sections, has step-by-step classroom lessons with time allotments, lesson objectives, and 29 activity sheets that can be duplicated for classroom use. Even a student teacher would have no problem teaching these lessons.

In all, there are five disks: the program disk plus a back up, the tutorial disk, and a utility disk called "Classroom Tools" which has six programs for copying, cataloging, renaming or printing files, formatting a disk, etc. A variety of printing formats is available for reports. Sorting/finding functions are not slow, and the program even includes options for mathematical calculations like, for example, averages. On the basis of all of this—with nothing more—*Bank Street School Filer* would rate as a terrific program worth five stars, but there is more!



DATABASES & TOOLS

The fifth disk contains 27 demonstration databases ready for use by teachers, administrators and students. They cover an incredible range of topics, including: SIGNERS, detailing the 56 signers of the constitution; DINOSAUR, describing 17 dinosaurs; STATES, listing in formation

on all fifty; MAGAZINE, for filing articles by subject, author, etc.; FINANCE, for keeping records for a school club; JOBS, designed for use by guidance counselors; BASEBALL, for keeping track of the team's performance; OVERDUE, for use by the librarian; SP EVENTS, for keeping a calendar of special events and to schedule and an-

alyze building use; STUDENTS, for storing information on each student for the teacher or substitute teacher; TEACHERS, for making class and room assignments; WHALES, describing 14 types of whales; COINS, for keeping track of any kind of collection. Students are encouraged to add new records to all of these.

As an additional teaching tool, Sunburst has produced an excellent color videotape showing a 7th grade class learning to use the program. It is available on loan to schools to use and to copy for their video libraries.

Six more programs, each a collection of databases, can be purchased for use with *Bank Street School Filer*. The titles are: NORTH AMERICA, UNITED STATES, ANIMAL LIFE, SPACE, ENDANGERED SPECIES and ASTRONOMY. Each of these has so much to offer, including an extensive teacher's manual, that they will be reviewed separately later, space permitting. Most are priced at \$59 each.

THE GRADE

Bank Street School Filer is so impressive and useful in so many subjects that if a school (particularly an elementary or junior high school) can afford only one new program this year, it should be this one. It is by far the best educational program of 1987. Congratulations Sunburst, and thanks for making it available for Commodore machines. We wish that all of your programs were!

ABOUT THE AUTHOR:

Dr. Elizabeth A. Kaspar is professor of Educational Psychology in the College of Education at Western Illinois University where she teaches courses for teachers on using microcomputers in the classroom. She received a grant in 1982 to use PETs to conduct one of the first courses on educational computing in Illinois.



UNITED STATES DATABASES

\$59.00 ★★★★★

Sunburst continues to maintain its high level of excellence with this set of outstanding databases to be used with Sunburst's *Bank Street School Filer* (see accompanying review). This package features not one, but six databases with information organized by state, each complete enough to stand on its own. Social Studies teachers from fourth grade up will find all six invaluable in the classroom. (It should be noted that all six of these programs require that *Bank Street School Filer* be loaded first, since their disks are only data disks and do not contain the database shell.)

Sunburst has provided yet another excellent teachers' manual that includes lists of suggested lessons, background information for the teacher, and numerous activity sheets to be run off for classes. Among the worksheets are maps of The United States, each with different features marked. The focus of the lessons is upon the students' making predictions and inferences and then verifying them. Most can be verified by use of one or more of the databases, but some require information to be sought from other reference materials. Testing hypotheses and asking questions, such as, "Why does state X have such a small/large population," or "Why does state X have this kind of climate," require students to gather information, then analyze and evaluate it. This provides practice in using higher level thinking skills, as well as teaching concepts and principles related to the geography, economics, science, and history, of the United States.

The *General Database* includes approximately fifteen facts about each state,

including size, population, the capital and its population, the date it entered the union, the number of electoral votes, nickname, elevation, largest city and population, the state bird and state tree, and the governor's salary. Students can then engage in tasks such as determining population density, then relating this to electoral votes and even to the governor's salary. Hypotheses also can be formulated regarding the relationship of this information to that in the other databases.

There is not enough space here to discuss the other five databases in this package, but, briefly, they are: a *Climate Database*, an *Economy Database*, a *Glossary Database* (which defines terms related to the other databases), a *Books Database*, and a *Personal Database*, to which students can add additional data.

This package of six separate programs is not only a bargain in price, but is an example of the level of excellence that educational programs have reached in 1988, a far cry from most of those available just three years ago. At last, computer use has moved from being "icing on the classroom cake" to a tool that improves teaching and enhances learning directly.

This series of database programs by Sunburst is leading the way into a new era of educational computing. Already I have nominated *Bank Street School Filer* as my choice for the best educational program for 1987; this adjunct program, *United States Databases*, and the other five databases that go along with it, should be viewed as a total package--seven winners in all--with a total of 35 stars!



FLEET SYSTEM 2+

by Karl T. Thurber, Jr.

Fleet System 2+ for the C-64 is a wordprocessor, spelling checker, thesaurus, and filer that allows you to nimbly create, edit, and rearrange text and data. The package also includes mail merge and math capabilities. It works much like its predecessor, though it's easier to use by virtue of its pop-up menus. These augment the basic status line and function key entry of commands. *Fleet System 2+* also offers much greater value because of the built-in spelling checker and thesaurus. I think of it as a 40-column *Fleet System 4* (see INFO #15, July/August 1987).

Documentation consists of separate manuals for the wordprocessor and the filer. Both manuals are well written, and the wordprocessor manual is indexed, though both come without command summary cards. A few short tutorials are included.

POP-UPS AND MORE

If you're at home with one of the "Big Time" C-64 wordprocessors—*Easy Script*, *PaperClip*, or *Word-Pro*—you'll be at home with *Fleet System 2+*, which uses similar commands. What you see on the screen is not exactly what you get on paper; this is because formatting controls are embedded in the text, using an alphanumeric command preceded by a "check-mark" character. But to give you a feel for the final results, *Fleet System 2+* includes a preview mode. This feature allows you to see just how the printed text will appear, including page breaks, headers, and footers.

Fleet System 2+'s text entry and manipulation capabilities are first class. You can easily insert, move, and delete text; indent paragraphs; search for and replace text, generate underlining, bold-face letters, superscripts, subscripts, and other special printing effects; do headers and footers; automatically center and justify text; link disk text files; and automatically number pages. *Fleet System 2+* includes a 22-line "extra text"

INFO RATED
★★★★

FLEET SYSTEM 2+ v2.50 \$59.95
with Fleet Filer v1.30
Professional Software, Inc.
51 Fremont Street
Needham MA 02194
617-444-5224

A very competent format-command C-64 wordprocessor that also allows you to preview printed output. The latest update in the Fleet System series, the program is smooth to use. A large (90,000+ word) spelling checker, an integral thesaurus, pop-up menus, and advanced text editing and manipulation capabilities are standard. A toss-in is Fleet Filer, an adequate though unremarkable file manager. Consider purchase on the strength of the wordprocessor alone. KTT

area that you can use as a scratchpad for the 413-line main text area which holds about four pages of text.

The RUN-STOP key has become the main "function key" on which program control revolves. When you depress it, you bring up the Function Mode Menu, which displays the program's 14 main functions or options. When one is selected, a pop-up menu comes into view; it allows you to select a specific option, many of which branch to additional menus. The CTRL and function keys are still used to directly access some features.

Included is a separate setup program where you may preset or change system default values. These include presetting page format, printer secondary address and line feed, and screen/character colors. There are numerous printer files to support most popular printers.

BIG AND FAST

One of the program's strongest points is the super-fast 90,000 word spelling checker. In addition to the 90,000 words in the program dictionary, you may add up to 10,000

words to a user dictionary. Text is checked in-memory: a four-page document is checked in about 60 seconds, making this a contender for the fastest speller in Dodge City.

There is a separate options program which allows you to customize and maintain the user dictionary and to obtain specialized information and vocabulary feedback. You can produce "frequency and statistics" reports to help you analyze your writing efforts. You also can find the document's total number of words and "unique words"; the total number of times each word is used; and the average number of characters per word, words per sentence, and sentences per paragraph.

WORDSMITH'S DELIGHT

Particularly important for "wordsmiths" is the built-in thesaurus. This feature provides synonyms (words with like meanings) and antonyms (those with opposite meanings), called up from disk via a pop-up. The action of the thesaurus is smooth and fast, as it opens a window on the screen to display word suggestions at several levels of meaning. It's possible to highlight a word in your text, call up the thesaurus, and replace the word in question, all without the need for retyping. While the control routines are built into the wordprocessor, the thesaurus dictionary is on a separate disk.

PLAIN JANE

Open the box and you'll find an extra, completely separate program disk and user's manual. The freebie is *Fleet Filer*, a simple and uncomplicated data manager. It is, in fact, so easy to use that even those who are unfamiliar with data management programs hardly need the 39-page manual. The program is fully menu-driven; the main menu lists ten major options, which include creating or updating field names; adding, finding, sorting, and printing records; math operations; read-



ing, writing, and listing files; and disk commands.

The program can store up to 5000 records, using up to 22 fields; each field may have up to 255 characters. Capabilities include multiple field pattern searching; mathematical calculations between fields; simplified redefinition of field formats; and conditional save, print, and math features. The report generator can work with multi-column mailing labels as well as page-size reports.

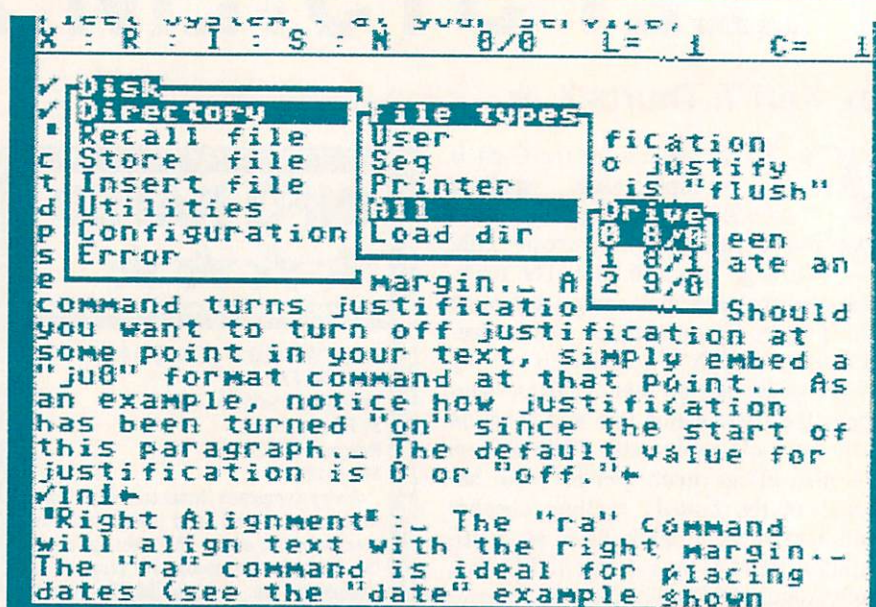
The file you're working with resides in memory. Although *Fleet Filer* saves its data as sequential (SEQ) files, generally considered less desirable than faster acting random or relative files, the program nevertheless has fast record-processing capabilities. Too, the use of SEQ files means that you may easily exchange files with the *Fleet System* wordprocessor and many other wordprocessors. Two separate programs, one for the 64 (40 column) and the other for the 128 (80 column), are on the program disk. The filer also may be purchased separately for \$39.95.

THE FEATURES I LIKED ...

Fleet System 2+ supports two single 1541 or 1571 disk drives, a welcome and much-needed enhancement. This makes disk handling much more simple, particularly in using the speller and thesaurus--though the filer only supports one single or a dual disk drive.

The *Fleet System 2+* upgrade has added full wordwrap, which makes entering, editing, and proofreading text far more enjoyable than in previous versions; the program's USR file format is compatible with *Fleet System 2*, 3, and 4. The pop-up menus for major functions considerably simplify use.

Except for the lack of presentation of alternative word choices, the spelling checker is the star of the package--there's little hype in Professional's claims for it. The thesaurus is easy to use, though I could not determine exactly how many synonyms and antonyms it contained. Too, the thesaurus contains antonyms as well as synonyms, unlike many online thesauruses, which contain only synonyms.



...AND THOSE I DIDN'T LIKE

For those who demand true WYSIWYG, *Fleet System 2+* doesn't cut it. You'll find yourself constantly flipping between edit and preview modes.

Having used *Fleet System* for more than 3 years, I found that while the pop-ups were fun to use, they got in the way of fast wordprocessing. It would be nice to have found a way to disable them and input commands directly, as in earlier incarnations. *Fleet System 2+* lets you access some commands using the CTRL and function keys, but not enough of them to suit my fancy. And you can't save your selection of default drives for the speller and thesaurus dictionaries.

Also, as the program has added features, it's grown in memory requirements to the point where the main text area can only hold four pages of text and the extra text area only holds a measly 22 lines. You'll probably need to learn how to link files.

Fleet Filer is not as fully developed, powerful, or comprehensive a product as the wordprocessor. The filer can handle most home filing, but it's definitely not in the class of *SuperBase* or *The Consultant*. The filer has no command or query language, nor are there any printer or screen default option or customization features. There's no command to jump to a specific record, and

you can't proceed beyond the last record directly to the first record. I'd call it a good data manager, but not a great one.

AT THE BOTTOM LINE

The many sophisticated features of *Fleet System 2+* make it a very competitive program -- though I'd purchase it strictly on its value as a wordprocessor, not as a data manager. The few complaints I have could easily be fixed in an upgrade. *Fleet System 2+* is an excellent value, and is in fact my favorite C-64 wordprocessor.

ABOUT THE AUTHOR:

Karl Thurber is a veteran of 22 years with the Air Force and is now pursuing full-time graduate studies at Auburn University. Karl's been into writing electronics, computer, and amateur radio articles since the mid-1970s, and he now has more than 150 to his credit. He's a member of his local users group, the Montgomery Area Commodore Komputer Society (MACKS).



INKWELL LIGHTPEN

by Tim Sickbert

INFO RATED



INKWELL LIGHTPEN MODEL 184-C

\$59.95

Inkwell Systems

5710 Ruffin Rd.

San Diego CA 92123

A lightweight, slim-bodied, less-expensive, but reliable lightpen for the C64/C128, from the recognized leader in lightpens, Inkwell. Suffers from bad documentation, switches without much tactile feedback, and incompatibility with older versions of Flexidraw, though it works fine with Flexidraw v5.5. The pen itself is sleek, accurate, and reliable if you can live with its shortcomings. TS

For many years, Inkwell's *Flexidraw* lightpen and graphics software package has been the de facto standard for C64 hi-res graphics. They have also historically been priced above many users' budgets. Too, the *Flexidraw* lightpen was required to take full advantage of some upscale third-party software packages. Canny marketers that they are, the people at Inkwell have moved to make their products more affordable. They have released a new version of their graphics software, now *Flexidraw 5.5*, which comes without a lightpen, and which also supports the 1351 mouse; they have packaged their top-quality lightpen as a separate product; and they have developed another, lower-cost, good quality lightpen.

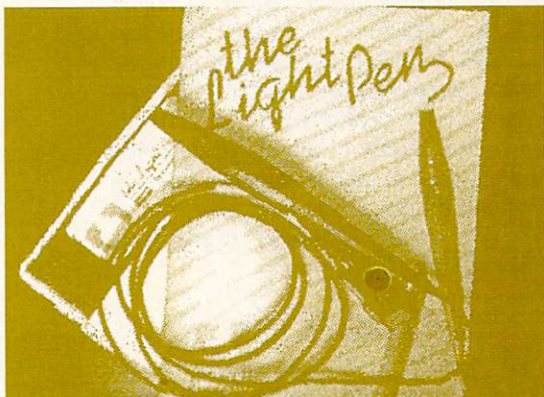
The *Flexidraw Light Pen Model 184-C* is an acceptable alternative to Inkwell's top-quality pen, which is now called the *Model 170-C*. Unlike the simple heavy-duty cylinder/push-button nose design of its predecessor, the *184-C* is a lightweight, contoured device with two independent buttons on the

side of the barrel. The barrel is glued together, so it cannot be dismantled or repaired without destroying the pen. If it fails, it must be replaced (which Inkwell will do for free within the 90-day warranty period...you are on your own after that).

I have used the original Inkwell lightpen extensively, and when I first started using the *Model 184-C*, I thought that it was too light, not as sensitive, and I did not like the new shape. I quickly got used to the shape and weight, and found it to be a very nice pen. The touch-sensitive buttons, however, do not have very much action, and so it is easy to accidentally push them, or to accidentally not push them when you think that you have. I never fully mastered the switches.

And speaking of the switches, I never figured out how to use the second. One switch is configured as a joystick button, which is the same as the push-button nose of Inkwell's original lightpen. The documentation only once mentions the use of the second button on the *184-C*, and the short BASIC example programs do not support it at all.

In general, the documentation is bad. While it does give some basic background information on how a lightpen passes information to the computer, phosphor persistence, and the like, it stops there. The disk that comes with the pen has a few programs that don't do much, and, being mixed BASIC and machine language, they are not very useful for learning how to program for the pen. It is barely enough to get a programmer going. And most notably, the *184-C Lightpen* does not work with the older *Flexidraw 5.0* software! The latest *Flexidraw v5.5* works just fine with the new pen, but if you are looking for a replacement pen to use with your older version of *Flexidraw*, or (we suspect) with third-party or public domain programs that support the older pen, you'll



have to pick up Inkwell's more expensive original pen, the *Model 170-C*.

In sum, the *Flexidraw Model 184-C Light Pen* is a moderate-quality, moderately-priced alternative to Inkwell's top quality *Model 170-C* pen. But because of the poor documentation and incompatibility problems, I can't recommend that developers or users buy it, unless you are buying it strictly as an adjunct to *Flexidraw v5.5*. For BASIC programming, it is sufficient, if you can figure out how to code for it from the meager examples; if you are completely aware of the compatibility problems, it is otherwise a perfectly serviceable pen.

PRICE LIST:

Model 184-C Lightpen \$59.95

Model 170-C Lightpen \$99.95

Flexidraw v5.5 \$34.95

ABOUT THE AUTHOR:

Tim Sickbert was the Editor of The Midnight Software Gazette during its final year and a half of autonomy. Tim is 24 years

old and holds a degree in English from The University of Illinois. His day job is writing documentation for Computer Teaching Corporation in Champaign, Illinois.



HOME DESIGNER

by Jeff Lowenthal

At first glance, *Home Designer* evoked a "So what?" reaction from me. I am neither architect nor engineer, so the prospect of being able to draw perfectly parallel lines did not immediately excite me. But having been forced to take mechanical drawing in high school, I was interested in how the age of the computer might have changed this field.

THE DOCS

For those of you accustomed to testing software by seeing what you can do without reading the manual, this program will send you back to the reading room. The well-written documentation is over 100 pages long, and includes a tutorial taking you through the many commands and modifiers which make this program so flexible.

The author warns "This program, like any powerful piece of software, requires practice, so don't expect to master it in one sitting." He is right. But once you have completed the tutorial, you will have a general understanding of the way *Home Designer* operates. Then all you need is some practice.

INPUT AND OUTPUT

While you may input data and commands from the keyboard, you will really need a joystick or mouse to use the program efficiently. After trying two joysticks with the program, I bought a 1351 mouse. Joystick control is very touchy, but the mouse is a good deal more positive. The program allows you to control how fast the crosshair moves, a nice touch.

Home Designer supports most common printers, although some Commodore, Okidata and Seikosha models will not allow the highest quality quad-density output. Those which allow hires printing vary in their ability, with Epson, Panasonic and some others allowing the maximum. Also supported are the Commodore 1520 (!) and 1521,

INFO RATED
★★★★★
HOME DESIGNER V 2.30 \$49.95
Briwall
PO Box 129 / 56 Noble St.
Kutztown PA 19530
800-638-5757
Home Designer is a full-featured multi-layer computer aided design program for the Commodore 128, which can produce house plans and other scale drawings. It has many of the features seen on much more expensive CAD programs for MS-DOS computers. The printed output from a dot matrix printer is excellent, but quite slow. Like traditional drafting, careful and sometimes tedious effort is required for the best results. Because of its complexity, Home Designer will not be mastered in a short time, but once understood it will perform as advertised. JL

and Hewlett-Packard plotters.

Helpful information regarding parallel interfaces for both plotters and printers is provided, including the actual switch settings for several combinations.

DESIGNING WAYS

Entering the main program, you will see a screen, blank except for the crosshair cursor and a set of commands down the right edge. Selecting some commands reveals sub-menus. There is no online help, which is too bad. A template for your function keys is also supplied, allowing you to enter the most used commands with one key.

Perhaps the best way to approach *Home Designer* is as a set of electronic tools analogous to the mechanical drawing aids used by draftsmen. The program will calculate and draw angles as if you were using a triangle, and you can draw perfectly parallel lines, arcs, circles, etc. You may enter line lengths either as the length desired in the final drawing or as dimensions which are to be drawn to scale. Note that in either

case what appears on your monitor will be smaller than the final drawing, which is normally 16 x 22 or 8 x 11. If you have specified the scale as 1/4"=1', telling *Home Designer* to draw a 12 foot line will result in a 3" line on your final full size drawing. The scale mode accepts decimals and fractions. This is one of the most powerful attributes of the package.

Coordinates may be specified by pointing with the mouse or they may be specified from the keyboard.

"Library figures" are included on the release disk. These include 23 sizes of windows and 20 doors in standard sizes. Also provided are several pieces of furniture and plumbing fixtures plus sample files.

Sooner or later you'll have to create figures of your own. This will be time consuming, but you'll only have to do it once because you can save your figures to disk. When you wish to use them, they can be rotated and moved to various places in your drawing as desired.

Drawing with the mouse is reasonably accurate, and if you overshoot a point you can delete the whole line and try again, or use the "trim" function to clean up your work. There is also a zoom command which allows you to blow up a defined area and then make corrections. Unlike many other graphic programs, this one is object-oriented, and zooming reveals more detail than the standard view. This can be demonstrated by zooming in on some of the library figures, which become more intricate as enlarged, sometimes revealing details which were invisible in the normal view. *Home Designer* allows five layers of drawing to be produced. These may then be individually or collectively printed in any combination. By placing different systems, say electrical and water, on separate layers, you can produce a plan showing everything or just selected features of a design. Layers may also be used to test modifications without changing the original plan, which remains on its own layer.

BACKGROUND

The program's author, James R. Kendall, Jr. is an engineer, and works with state of the art (\$500,000!) systems every day. He knows what is of most practical value and has incorporated most of those features in this package, originally designed for his personal use at home. Although professional MS-DOS programs offer 250 or more layers, he feels there is no real use for them in a home program. Even in his upcoming Amiga version he plans no more than 15 layers, though the hardware is capable of many more. This demonstrates a concern for what will be useful, rather than what's flashy, and it's an intelligent approach to programming.

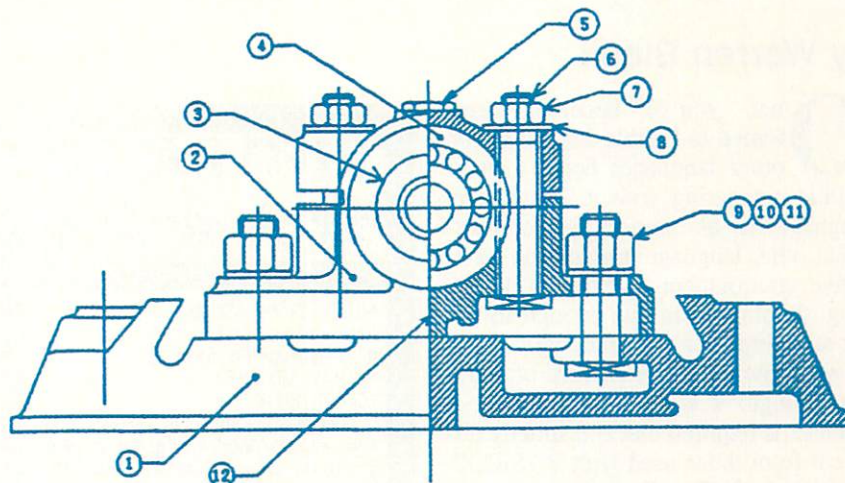
EVALUATION

Having used the program for a while, my initial "So what" attitude has changed to one of respect. There are however, a few glitches which should be mentioned.

During disk access, which is lengthy, the video display goes crazy, flashing and jumping in a very annoying way. This is particularly annoying on a color monitor. When I moved the cursor to the edge of the field, a string of "P's" appeared there. These are said to be hardware update version problems, apparently acknowledged by Commodore.

Printouts take a long, long time. In draft mode, an 8x11 drawing of the house plan supplied on the disk took 7 minutes and 6 seconds on my Epson FX-85 with a 64 k buffer. The full size version (1.0) took almost 23 minutes. The 8 x 11 format equals a .5 reproduction, and all dimensions would be halved. You can also specify other reductions, but .5 appears to be the most useful since the drawing can then be printed in one pass. The 16 x 22 format requires two passes, much like a large spreadsheet is printed in sections which are then taped together.

The latest version of the program, V2.30, includes quad density printer drivers which improve the output sub-



An actual quad-density dump to standard dot-matrix printer.

stantially, "3/4 of what you could get from a laser printer," according to Kendall. But these are even slower than the draft mode. There's no free lunch, and if you want the best quality, you will have to wait for it, sometimes as much as an hour.

You may have to be brave, too. The first time I tried a high-res printout my printer began to make strange, grunting, grinding sounds. Thinking something was jammed, I halted the printing, checked for obvious problems and found none. I tried again, and the same noise started. The printer would grind and advance the paper a small amount, stop, and do it again, all with no printed output.

Being an experimenter at heart I let it go on, and suddenly the Epson began to produce beautifully sharp lines...a drawing! The dreaded sound is not produced when printing draft quality, and is apparently connected to the very slight vertical shifts which are part of the high density mode. This trauma over, some thirty minutes later I had a beautiful .5 scale drawing, better than anything produced by the previous version of *Home Designer*. If your printer starts making strange sounds, it's probably ok. But still unnerving!

One last "feature" which should be

mentioned. James Kendall is a Q-Link subscriber ("CADMANN") and says he will be happy to answer questions about his program.

The newest version isn't copy-protected, and it comes on a 1541 "floppy" disk.

Home Designer is not difficult to use, but it is tedious. A trained draftsman could work faster with paper and lead, but would fall behind if a drawing had to be rescaled, something the computer is particularly suited for. The ability to do layers could be very handy, and the high density printouts are beautiful. The documentation is well done, and the tutorial will get you rolling, even with no drafting experience.

ABOUT THE AUTHOR

Jeff Lowenthal is a photojournalist and author who spent ten years on the staff of Newsweek. Beginning with a VIC-20, he came to know the joys and sorrows of the Commodore owner. With the encouragement of Jim Oldfield, he became a contributor to The Midnite Software Gazette, and now INFO. Jeff is currently a denizen of the Chicago area.



MULTI-FORTH

by Warren Block

Once you've become accustomed to Forth's distinct flavor, other languages begin to have trouble comparing with it. What other language is as amazingly compact? What other language provides an interactive environment that makes debugging simple, yet is fast enough to use for any purpose a conventional compiler would be used for? A word of warning, though: it is not for everyone. A mindset is required that is distinctly different from those used with BASIC, C, or Modula-2. But Forth programmers enjoy a unique programming environment that is elegant, concise, and very powerful.

FORTH: AN OVERVIEW

A Forth routine is called a *word*. A program is written by defining your own words, which call words already contained in the "dictionary". In effect, the newly-defined words are new commands that are added to the language. This extensibility is one reason that Forth code is so compact; once a general-purpose word has been defined, it is available immediately for use in any program. Instead of defining it again, only a call to the existing word is needed. (A good example of this is the total size of my full-blown *Multi-Forth* development system: 80K. That 80K equates roughly to the combined size of a compiler, linker, some utility programs, and "include" files for a more conventional language.) Extensibility also helps to speed program development: a word only needs to be written and debugged once.

Unfortunately, space constraints don't permit me to describe Forth in more detail here. An excellent overview and tutorial on Forth is the book *"Starting Forth"* by Leo Brodie; it has lots of funny little cartoons, too.

Forth fits very well into the Amiga environment. Its compactness accentuates the value of a multitasking system, and the language is flexible enough to adapt to the Amiga's heavy use of struc-

INFO RATED
★★★★★
MULTI-FORTH \$89.00
Creative Solutions, Inc.
4701 Randolph Rd., Suite 12
Rockville, MD 20852
800-FORTHOK
A state-of-the-art Forth language package. Includes local and global variables, structures, extensions to scale and rotate graphics. Accepts standard text files. Interactive nature of the language makes debugging simple. Turnkey utility creates stand-alone programs that may be sold without licensing fees. Comes with Forth versions of the standard C "include" files; assembler, snapshot, trace, and profiler utilities. Large manual has some simple tutorials and good reference sections. Needs more examples and IFF routines, but an excellent product at a very good price. WB

tures. But its major advantage is an interactive environment that allows you to test commands, examine the values of variables, and debug program routines.

BENCHMARKS

I have a favorite "language benchmarking" program: *"stars.c"* by famed graphics hacker Leo Schwab. The program simply displays an animated *Star Trek*-like star field. It's a good program to try out with new languages, because it calls several of the Amiga library routines, and the source code makes use of some of the peculiarities of the C language and the compiler's text preprocessor. My line-by-line Forth translation crashed spectacularly the first time I tried it. The second time, I executed the commands interactively from the keyboard, and located the problems. Two hours after starting from a blank screen, I had completed a debugged version and tried half a dozen modifications; it had taken three times as long to translate the same program into Modula-2. But what sur-

prised me most was that I was able to do this after having had *Multi-Forth* for less than a week! *Multi-Forth* made my attempts at programming the Amiga not only more productive, but--dare I say it?--fun.

When adapting the C program mentioned above, I began to get impatient: it was taking three or four seconds to compile, a noticeable pause. Then I realized that this was more than twenty times faster than my Modula-2 compile/link cycle! Both languages were running out of my 2 meg *StarBoard*, but *Multi-Forth* is so small that it could be run comfortably from RAM: on a machine with only 512K. Both Modula-2 and C would need to be run off disk on such a machine, slowing them drastically.

The speed at which compiled programs run is also very important. For the statistics-minded, *Multi-Forth* runs the standard 10-iteration *BYTE* Sieve in 22 seconds. An optimized version executes in 12 seconds.

MULTI-FORTH FEATURES

Forth has traditionally lacked some of the features of other languages, many of which Creative Solutions has seen fit to add to *Multi-Forth*. These include: local and global variables (in addition to normal Forth variables); "structures" which are compatible with the C structures used by the Amiga libraries; local multitasking that is handled by *Multi-Forth*, rather than the Amiga Exec; and the capacity to use standard text files instead of the block-oriented editor common to most Forth systems.

Many of the added features are specific to the Amiga. Some words (like *Dir*) merely "shell" commands to AmigaDOS. Of course, the word upon which they are built is also available for your use, so you can add your own definitions. This gives you all the power of the CLI combined with the interactive programming environment of Forth, and removes the necessity of leaving an

extra CLI window available for AmigaDOS commands.

To ease the task of converting C programs, complete *Multi-Forth* versions of the Amiga C "include" files (including the additions for version 1.2 of the Amiga operating system) are provided. Definitions in these files follow the naming conventions used in their C counterparts, which keeps the task of translation straightforward.

Several utilities to aid program development are packaged with *Multi-Forth*. There is a 68000 Forth assembler which, while not for the faint of heart, is very powerful. A "trace" word displays the word currently running and stack conditions during execution; a profiler shows where a program is spending most of its time, and where optimization is likely to help. The *Snapshot* word saves the Forth system as currently defined (permitting you to add your own custom words and have them instantly available on boot-up), and *Turnkey* creates a stand-alone program in a similar fashion. Before using *Turnkey*, you tell the system to "forget" unneeded words, erasing them and reclaiming the memory that they occupied. This brings the overhead of the *Multi-Forth* kernel to 20-40K for typical programs, not an unreasonable amount considering the extremely small size of the program code itself. (The stars program occupied only 946 bytes of memory; a stand-alone version made without "forgetting" unnecessary words was 36K. With a bit of work, I managed to produce a stripped version that was only 22K in size.) "Turnkeyed" programs may be distributed without paying any additional licensing fees, provided Creative Solutions is mentioned in both the program and its manual.

GRAPHICS

Not only does *Multi-Forth* include words that access the Amiga graphics library routines, but it has its own versions that handle scaling and rotation of the current graphics window. These provide an extra level of flexibility: you can draw a graph and change the scaling factor to make it larger or smaller, or rotate it.

Extra convenience is also added to some of the Amiga library routines. When the *OpenWindow* word is used, the address of the Window structure is saved in a system variable called *CurrentWindow*--freeing your program from the responsibility of storing it. Additional words like *CloseCurrentWindow* and *VerifyWindow* (and their equivalents that work with Screens) make working with basic Intuition functions much simpler.

DOCUMENTATION

Multi-Forth's manual comes in a three-ring binder, and consists of 338 pages of small but readable type. It contains an introduction to the features of Forth, short tutorial segments, and sections on AmigaDOS, Intuition, graphics, Amiga libraries, and the 68000 assembler. It is well-written and thorough, but the index needs to be expanded to be really useful.

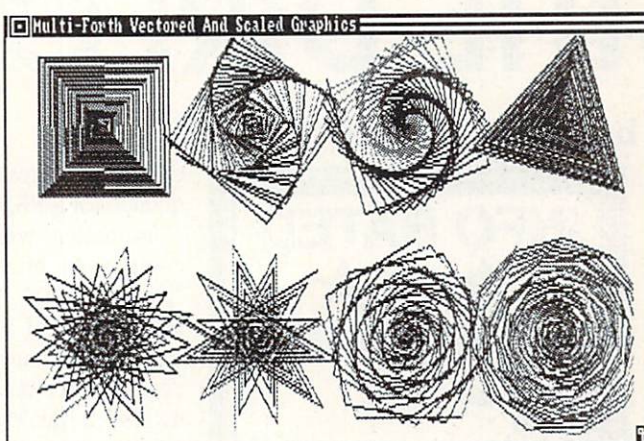
There are a few inaccuracies in the manual. For example, it describes a fully extended *Multi-Forth* system, but what's on the disk is the "root," unextended, one--you have to build the extended system yourself. (The process is described in a text file on the disk.)

The few flaws are minor, though. Overall, the manual serves as a good reference for *Multi-Forth*, and the tutorial sections will help beginners to get started.

SHORTCOMINGS

Like the manual, the "readme" files on the disk contain some inaccuracies concerning things like the names of files. They are not serious, but can be annoying.

Only a few examples of non-trivial



Each design in this demo was created by a specially defined Forth word.

programs are provided on the disk. A disk full of examples should be made available.

Finally, *Multi-Forth* doesn't include routines to read and write IFF graphics files, a feature which has become almost a necessity for any serious Amiga programming language. (Had *Multi-Forth* come with more examples and some IFF routines, I would have rated it a full five stars.)

CONCLUSION

Swift and fast, *Multi-Forth* is a Porsche among the Fords and Chevys of Amiga languages. At its original list of \$179, it was a good value. For the current price of \$89, it's a steal.

ABOUT THE AUTHOR:

Warren Block has been working with an assortment of mini and microcomputers since 1979. He studied math and photography in college, but quit to become a freelance writer and consultant. He now writes whenever he can find his computer underneath the tangle of program listings, compact discs, and miscellaneous stereo and computer equipment. He lives in Rapid City, South Dakota, near the foot of Mount Rushmore.



THE DIRECTOR

by Oran J. Sands III

INFO RATED



The Director \$69.95
The Right Answers Group
Box 3699
Torrance CA 90510

This graphics programming language is flexible, powerful, and complete. It allows you to produce complex animations using simple text script files. Features include integration of digitized sound, fast execution, compact code, the ability to produce videos that interact with the viewer, compatibility with .anim files, and an excellent manual. There is no user-friendly "front end" to this animation language, but the results are great! -OS

Every once in a while a program comes along that is so sensible, so ingenious, that you wonder why it took so long for it to appear. *The Director* by The Right Answers Group is one of them. *The Director* is a program that has been conspicuous in its absence. Although other animation programs exist, none exhibit the flexibility of this animation programming language..

The Director is not a program in the usual sense of the word. In fact, it would be much more accurate to refer to it as a language for programming graphics. Using the program is very much like programming in BASIC--so much so that prior programming experience can be handy, though it certainly is not necessary.

If you've seen the "Probe Sequence" demo or the BADGE Killer Demo winner "RGB",* you've witnessed just a little of the power of *The Director*. In fact, *The Director* was written in order to fa-

cilitate the creation of the *Probe* sequence for a PBS program.

Animating with *the Director* is accomplished by a technique known as "page-flipping", or "cel animation". Each frame of the animation looks almost the same, except for minor changes in successive images. When displayed quickly enough, these images appear to have movement. It's essentially the same technique used to create animated cartoons. This technique can be memory-intensive since each frame would ordinarily be the size of a full picture. *The Director* allows for partial page-flipping, changing only the part of the picture that actually needs changing. This greatly reduces both the memory requirements for the animation and the access time needed to retrieve each picture; since the partial image is smaller, it can be moved more quickly. The commands used in this language enable the user to establish what part of what image should be changed and how. As we will see, this is only a small part of what this package can do.

THE ANIMATION LANGUAGE

A friend of mine has described *The Director* as "BASIC meets the Blitter", and I can think of no better way to describe it. Although you'll find the normal BASIC-like commands like FOR/NEXT, IF/THEN, etc. you'll also discover quite a large number of new commands which exist solely to manipulate graphics and text displays. Commands such as BLIT, BUFF, DISPLAY, DRAW-

MODE, PALETTE, SETFONT, TEXT, FADE, CYCLE, BLITMODE, etc., allow the user to completely control the presentations made with *the Director*. Graphics commands like CIRCLE, DRAW, ELLIPSE, FILL and PEN can be used to create simple graphics from scratch. It would be difficult to go into details on all that is possible with this language. Suffice it to say, it's only as limited as any good programming language--almost anything is possible!



A very "Fifties" demo from *The Director*.

WRITING AN ANIMATION

Using *the Director* is as simple as writing a program. For example:

```
LOAD 1, "pictures/pic1.pic"
LOAD 2, "pictures/pic2.pic"
10 DISPLAY 2
DISPLAY 1
GOTO 10
```

This program would load two pictures into memory, display them in the order specified, then loop back to the first display.

To write the program, you simply use a text editor (like *ED*) or a wordprocessing program, as long as the result is an ASCII text file. Line numbers are optional unless branching is required, as in our example.

* See Joel Hagen's article on the Making of RGB elsewhere in this issue.

PLAYING AN ANIMATION

You run animations from the CLI. Type "*director filename*" and the animation loads and runs almost instantly. If you had made errors in your programming, the *Director* would not run the animation, but would instead give you specific error messages allowing you to debug the animation file. The amazing thing is that the language is compiled, not interpreted, but it is compiled just before running, creating a file called "*filename.film*". It's compiled so quickly, you never know it's happening. The *film* file is complete and can be run using a freely distributable program called "*projector*". This allows you to distribute your animation to others who don't have *The Director*.

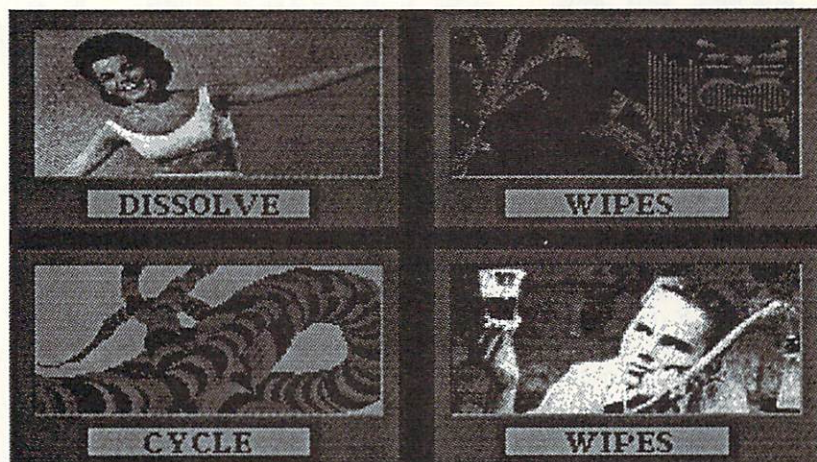
SPECIAL FEATURES

There are some very special features of *The Director* that really set it apart from other animation programs. The first is the ability to use digitized sounds along with the animation. A software sound module is used, but it doesn't have to be included if the animation doesn't require it. This keeps the *film* file as small as possible.

Another special feature is the ability to use *.anim* files created with Aegis's *VideoScope 3D* animation program. This program produces animated objects composed of polygons, and can add yet another dimension to your animations.

But the feature that really makes *The Director* stand apart is the set of commands that allow for user input as the animation runs. These commands include GETKEY, GETMOUSE, IFKEY, IFMOUSE and INCLI, among others. Combined with the ability to conditionally branch (IF/THEN and GOTO for example), these special commands allow the viewer to respond to the animation with the mouse or keyboard and thereby direct the action of the animation. This opens up a lot of possibilities.

Imagine a tourist looking at an Amiga



This demo features four simultaneous effects.

display that lists points of interest and asks him to point the mouse at an illustration corresponding to a historic site. The presentation would then respond by changing to an image of the site with a text file relating its history displayed underneath.

Computer-assisted instruction (CAI) is another possibility. Lessons can be greatly enhanced by using the Amiga's graphics power, and *The Director* puts this power in the hands of even the most novice programmer.

The language supports the use of variables, arrays and the loading or saving of text files. It allows double-buffering for super-smooth animation. DOS commands can be passed from the program to the CLI and any information resulting from such an action can be returned to the program. There is also a TRACE command to allow the programmer to debug as the program runs. Animations are not even limited to what can be squeezed onto one disk, but can expand to include pieces from several disks or a hard drive. The program's normal mode is to load as many graphics into memory as will fit. This allows for very rapid screen updates. Transitions between pictures or frames can be custom designed by the programmer. A utility program called *Bli-tUtil* is supplied to help the programmer arrive at the correct parameters for the commands.

DOCUMENTATION

The manual is very easy to use. It has 180 wire-bound pages and lays flat. It also has a fold-in flap so you can keep your place. It is well laid out and easy to read. The material is outlined in a manner that makes sense, and numerous tutorials are included that teach the user the methods used to create animations (and all the tutorials work!). When necessary, drawings are included to illustrate points of discussion, such as the concept of double-buffering. There is even a section that attempts to teach programming to the novice. The programming examples often give the user simpler ways to accomplish tasks than he might have come up with himself. This is perhaps the best manual I've had the pleasure to use in a long while.

AN ASSESSMENT

I must give *the Director* top marks for ease of use and capability. I found it simple to use and easy to understand. The flexibility exists to create anything from simple slideshows to complex viewer-response controlled presentations. It would be a good deal at \$150, but at a suggested list price of \$69.95 it's a steal! For the novice or serious presentation creator, this package is unequalled. It belongs on the shelf of anyone who considers himself an Amiga graphics connoisseur.



VIDEO OUTPUT HARDWARE

by Oran J. Sands III

The popularity of the Amiga for generating video titles and animations has had the hardware market scrambling to catch up with the demand for devices that will allow recording of the Amiga's incredible graphics. Given the need for a stable color composite signal and the desire to overlay (key) the signal over the usual camera or VCR outputs, several manufacturers are offering video signal output devices of varying prices and levels of quality. The majority of these devices will work on all models of the Amiga, except as noted.

VIDEO OUTPUT DEVICES

These devices convert the Amiga's RGB output to composite video.

C-View \$45.95

C-Ltd., 723 E. Skinner, Wichita, KS 67211, (316) 267-3807



C-Ltd offers two devices that allow non-RGB color output from an Amiga 500, 1000, or 2000. The first unit supplies a separate chroma and luma signal for use with compatible monitors such as the Commodore 1702 (ala C64). This could also be used with an S-VHS videotape system. The second unit is

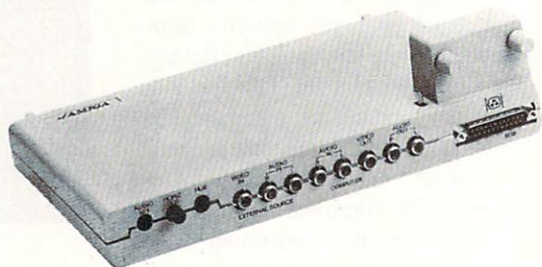
identical in size, but has only one output, a color composite NTSC signal for use with VCRs or composite video monitors. Either unit plugs into the RGB port but they do not allow for pass-thru to the Amiga monitor. They are very small units—all circuitry is packed into a DB25 connector hood shell with attached RCA cables. The signal is adequate for monitor use but may not be as accurate as desired for recording purposes.

V-I 500, V-I 500RF, V-I 2000
\$54.95, \$64.95

Creative MicroSystems, 10110 SW Nimbus #B1, Tigard, OR 97223, (503) 684-9300



The V-I (video interface) devices from CMS are very sturdily packaged and offer, at minimum, an NTSC color composite signal AND chroma/luma outputs. This allows you to still use the standard AMIGA monitor to view your work while using the composite signal for recording. The RF version of the V-I has an RF signal output (channel 3 or 4) that could be used with a TV or VCR tuner. The quality of all signals is excellent. The box has a DB23 connector at one end and RCA jacks along its length. It is designed to slide along the table until it meets up with the RGB connector on the back of the 500. Although made for easy use with the 500, it can



A-1300 Genlock

be used on the 1000 and 2000 as easily. A plug-in card for the video slot of the 2000 is available as well. An great value.

GENLOCKS

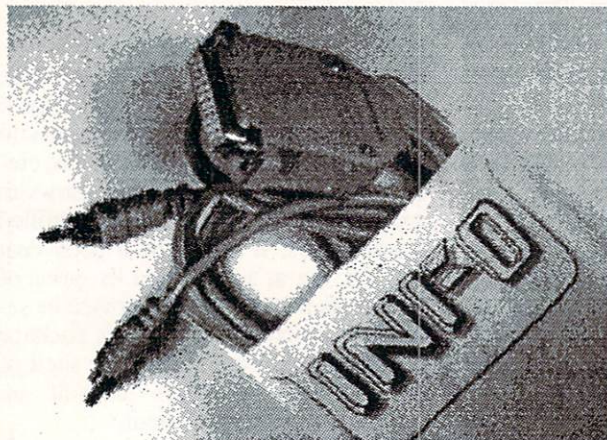
These are devices to synchronize the Amiga to an external video source and provide for overlaying the Amiga's graphics atop the other signal. All devices listed work equally well with signals from VCRs or cameras. All units (with the exception of the 1300) claim adherence to NTSC RS-170A standards for composite color signals. Devices not tested by the author are not rated.

A-1300 Genlock \$299.95

Commodore Business Machines 1200
Wilson Dr. West Chester, PA 19380
(215)-431-9100



The 1300 was the first unit made for the Amiga that would allow an external video signal to be mixed with the Amiga's graphics. Although designed for the 1000, it can also be used with the 2000 if you prop up the computer and put the Genlock underneath. It could be used with the 500 if an extension cable for the RGB port could be made (but the power supply would also



C-View in an INFO pocket protector

have to be replaced with a more powerful unit). The unit allows pass-thru of the RGB port to the monitor and a switch to select viewing of the input signal, the Amiga signal or the combined signal. The combined signal is the Amiga signal with the background color (color #0) made transparent, thereby showing the input video underneath. The effect is that the input video is overlaid with the Amiga graphics. The quality of the signal leaves a lot to be desired. Its color is quite unstable and VERY inaccurate. Some recorders don't like the signal. Still, it was the original and led the way for others. Used 1300 genlocks abound and can be bought for very little.

Amigen (formerly Imagen) \$179.00
Mimetics Corporation P.O. Box 1560
Cupertino, CA 95014 (408) 741-0117



The *Amigen* is an attractively packaged low-cost genlock that is one of the best values of all the genlocks currently shipping. It's housed in a tough plastic case with a connector for the RGB port on one end and two RCA phono jacks and a DB9 connector on the other. The RGB signal can be passed thru to the Amiga monitor via this 9 pin connector, but you may need a special cable to use it, depending upon which monitor you have. (This cable is available from Mimetics for \$12.95.) The overlay of Amiga graphics upon the input video is

done quite cleanly, but is always on and can't be switched off. The quality of signal is good but not great. The manual details methods of usage and info about NTSC video characteristics. Several adjustments are pointed out and instructions included for using them. Early devices had an overheating problem which has since been fixed. I can recommend this device for the video hobbyist or low-end producer on a tight budget. At this price everyone could have one.

Progen \$399.00
Progressive Peripherals and Software
464 Kalamath St Denver, CO 80204
(303) 825-6938



The *Progen* is a small metal box that connects to any Amiga's RGB port by a 6 inch ribbon cable. On the box itself are an RGB port for the monitor and BNC connectors for the video in and output signals. The *Progen* passes the input video with no degradation of the signal and produces a broadcast quality signal. The Amiga graphics are overlaid in the same manner as other genlocks, but it also allows the output video to be switched among four modes: the input video only, the Amiga signal only, the Amiga signal laid over the input signal (color #0 transparent), and a new mode where the user can define ANY color as transparent in combination with or without the background. These selec-

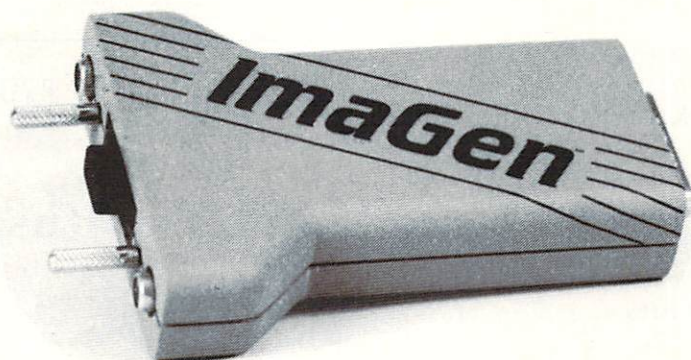
tions can be controlled via keyboard through supplied software or by switches added by the user. Software control is facilitated by connection of the *Progen* to the parallel port. This is an excellent device for the serious amateur or the industrial/educational video producer.

SuperGen \$749.95
Digital Creations, Inc. 1333 Howe Ave.
Suite 208 Sacramento, CA 95825 (916)
344-4825
Not rated.

The *SuperGen* is one of two units currently vying for top place among the current selection of Amiga genlocks. In addition to a broadcast quality output signal, the *SuperGen* has built-in faders that allow the input signal to be faded to and from the Amiga signal (and anywhere in between), and to fade in the Amiga graphic overlay as well. This is controlled via slider controls on the front panel or via software. All connectors are BNC with a loop-thru video in, two overlaid video outputs and an RGB pass-thru for the monitor. It also supplies an external key signal output for use in a studio environment. This is a truly professional unit for those to whom price is no object.

GenKey \$749.95
SciTech Corporation 1450 NW 78th St.
Miami, FL 33126 (305) 591-1620
Not rated.

The *GenKey* has a broadcast quality output and was designed with the video professional in mind. Like the other genlocks, It allows overlaid graphics, but it also offers the ability to adjust subcarrier and horizontal phase relationships to facilitate its incorporation into a video studio in the same manner as most broadcast equipment. It also has an external key output, and the Amiga video signal has been time-base corrected and can be thoroughly adjusted by the built-in processing amplifier. These controls appear on the front panel (but can be remoted if necessary). It's a professional unit for those desiring easy integration of the Amiga into their studio rather than a stand-alone box.



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Modular software is coming. With modular software, different programs talk to each other using a common macro language. Apple Computer, Inc. has started a software division focusing on modular software, and Microsoft Inc's Bill Gates has been talking about it. Modular software lets "multitasking" mean more than just running two programs at the same time; you can run programs *together*, doing more than each program can do alone and letting you pick exactly the pieces you want to use.

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NOT FOR PIRATES

COPY CORNER

Copy Corner is back to stay! I'm proud to say that I have been asked to take over my favorite INFO column. You've been clamoring for the return of Copy Corner since its unintentional disappearance after INFO #13, and

I'm hoping to meet your demands by providing interesting software reviews and a few surprises.

If you have any ideas on what you'd like to see in Copy Corner, or if you're a software publisher and would like to have your backup, speedup, or disk utility software or hardware reviewed, please contact me in care of INFO magazine. -David Martin

COPY EVOLUTION

Disk copiers have evolved considerably since the introduction of the original *German Four Minute* fast copier. This little gem copied an unprotected disk in under 5 minutes on a single disk drive, a job that had taken previous copy programs almost half an hour. I remember the first day I saw this program, and it's a plain fact that I was amazed by its speed.

After the German copier came **nibble copiers** which had the ability to copy complex disk formats that the normal 1541 DOS was unable to read. The complexity of these formats can vary, and such disks were always impossible to copy with a normal DOS copier (like *1541 Backup*). By using a nibbler you could reproduce the nonstandard disk formats that are the key to modern copy protection. The result was a disk that was exactly like the original, including copy protection. The copy ran just like the original.

As Commodore computer systems evolved, the introduction of hard disk drives (like Fiscal's *Lt. Kernal*), third party disk drives (*MSD*), and today the 1581, prompted the demand for programs that were not protected. Since the demand for multiple-drive-compatible disk protection or the removal of copy protection altogether was not met by most software vendors, many users found that they could not use their programs on all of the disk drives available.

The demand for programs that could run on all disk drives prompted the invention of the **parameter copier**. These copiers have the ability to completely strip a disk of protection. The result is a program that can be transferred to virtually any disk drive.

WHAT IS A PARAMETER?

Technically speaking, a parameter is a small program that alters original program code on a disk so that when the program is executed it is either fooled into thinking the disk is still protected, or bypasses the protection completely. Software that has been "de-protected" through the use of a parameter should then load and run on most hardware. However, don't expect everything to work, since some programs also incorporate fastloaders or other potentially troublesome specialized features.

There are also some types of parameters which merely synthesize the copy

protection on the disk copy. They don't copy the entire disk like nibblers do, but only reproduce the protected track or tracks. These parameters create a disk that will not run on all hardware, so don't expect to transfer programs copied this way to your hard disk, MSD or 1581.

One drawback when using any parameter is that each individual parameter will only work on a specific version of a program. If the parameter does not work on the program you are currently trying to copy, then it's very possible that the software vendor has changed the software somehow. Changes to software alter the arrangement of program code and data on the disk. These changes, small or large, can often have adverse effects on the ability of a parameter to function. Usually, parameters are provided to cover as many known versions of a program as possible. So sometimes trying a different parameter will give you the results you need.

STATEMENT OF POLICY:

INFO Magazine does not promote or encourage the illegal copying and distribution of commercial software. The purpose of our Copy Corner column is to keep INFO readers informed as to the most effective means of making archival backups of their legally obtained software, as allowed by U.S. copyright law. If you pirate software or you know people who do, we would like to see you stop. It is not only illegal (a Federal Offense, with very stiff fines and jail sentences as the possible consequences), but it hurts the Commodore computing industry by depriving software authors and publishers of the profits due them for developing such excellent software. Remember: PIRACY KILLS NEW SOFTWARE RELEASES! It has seriously affected the release of new titles for the Atari ST, has held back the development of some C64 titles, and is now threatening to impact the Amiga market. DON'T PIRATE! WHEN YOU PIRATE SOFTWARE, WE ALL PAY THE PRICE!

INFO RATED



KRACKER JAX \$19.95 each
(volumes one to seven)
Software Support International
2700 NE Andresen Road
Vancouver, WA 98661
(206) 695-1393

An effective, if cumulatively expensive, disk backup series, the *Kracker Jax* parameters comprise the most up-to-date and effective parameter copier for the C64 on the market today. Each disk contains 90 or so parameters for the most popular C64 programs—make sure you call SSI first to find out which disks you need for the particular titles you need to back up. -DM

PROTECTION BUSTERS

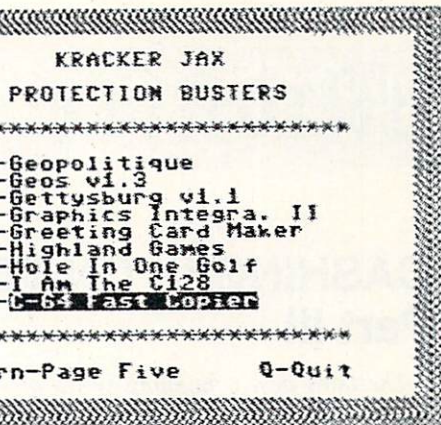
If you're looking for the latest parameters, then contact Software Support International. They provide a seven-volume set (!) of parameters on disk at \$19.95 each plus \$3.00 S/H (USA) per order.* Each volume contains 90 or more parameters, and the collection will back up most popular titles.

Some of the parameters provided by *Kracker Jax* reproduce the copy protection on the disk, so if you want to use a

particular program on a hard disk drive or MSD, you may want to contact them to see if the parameter you are interested in will work with these types of drives. You'll have to contact them before you buy anyway, to find out which collection contains the parameters you're interested in.

The *Kracker Jax* parameter disks are very easy to use. Each disk starts up by simply booting the first file on the disk via **LOAD "*"8,1**. After booting, you can page through the list of parameters on the disk and select the one you want to use. You must have a copy of the disk ready in order to apply the parameter. Remember, never use a parameter on the original disk—always use a backup. If you don't have a backup available, you can hit "C" while in the *Kracker Jax* menu and a disk copier will load that you can use to make the necessary copy. This copier does not copy errors onto the backup disk, but it will report them to you. After this is done you can reload the *Kracker Jax* parameter menu and select the required parameter. Then just follow the easy on-screen directions.

I highly recommend this product to



Kracker Jax menu selections

anyone wanting to get full potential from their software. Whether you're looking for a way to protect your software investment, or are just plain tired of software that won't run on your hard disk or other drive, then the *Kracker Jax* parameters disks are the cure for your backup blues.

ABOUT THE AUTHOR:

David Martin is a recognized expert on Commodore disk drives, and is the author of a book on the MSD drive and its operating system. (He has also authored some of the parameters included on the *Kracker Jax* parameter disks, but he tells us he is still unflaggingly impartial.) He is an undergraduate college student, and also works for B. Dalton Booksellers. He can be reached on QLink as **David M.**

* Note that this is a total of \$140 for the current complete set of *Kracker Jax* parameters, with more on the way!

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INFO

Midnite Software Gazette

by James Oldfield Jr.

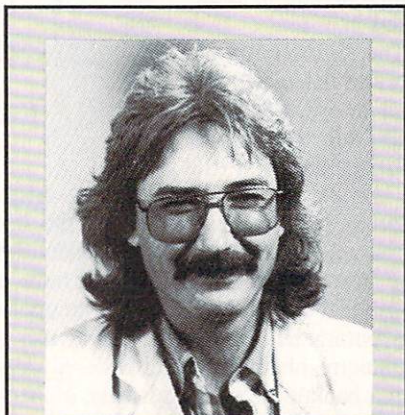
CASHING IN ON TECHNOLOGY Part III

The third in a continuing series of articles addressing the important question: "How can I make a fortune in the computer software business?":

DISTRIBUTION

Selling your product on your own is very difficult, especially if you don't have the manpower or the time to do it. The days of marketing your product without some professional help are quickly disappearing. It's not by any grand design—it's just that there is a lot of competition, and it takes more than a small classified ad to entice today's customer to make a purchase. The maturing computer market, with its established channels of distribution, can easily be the scene of a marketing disaster for your product; at the very least, it will present a formidable obstacle to the newcomer. And no matter how good your product is, if the public doesn't have easy access to it, they won't buy it.

You may want to enlist some help from people whose sole purpose is to distribute products to as many retail outlets as possible: the computer product distributor. He offers services you probably can't afford to provide for yourself, such as a warehouse to store hundreds of copies of your product, and a group of tele-marketing sales people selling to hundreds of pre-qualified dealers. A distributor affords you a single sales outlet, a shipping and receiving facility, and, more often than not, a support staff to service dealers who sell your product. A distributor does not sell to the public. Distributors rely on their strength of numbers; that is, on the variety and quantity of products they can ship to market, in relationship to their number



James Oldfield Jr. is Vice-President of Micro-Pace Computers, Inc., The Director of The Midnight Press, a consultant for Constellation Software, and a Commodore Guru, first class. You can reach him on QuantumLink as **Midnite**. You can write to Jim at PO Box 181, Tuscola IL 61953.

of employees. They handle products from literally hundreds of companies, which can add up to thousands of products.

There are many of these distributors in the US market. They can be broken down into three major categories: regional, national and international. *Regional* distributors confine their sales to a particular region of the US. A regional distributor will cover the entire Midwest, East, Southwest, or South, or even just a single large state like California. *National* distributors sell to dealers in all fifty states. *International* distributors cover the entire US market and some portion of the foreign markets.

All distributors, regardless of their size, maintain some type of dealer contact list. This list is the lifeblood of

The opinions expressed in this column are those of the author, and do not necessarily represent those of INFO Publications, Inc., our staff, our lawyers, or any other living human being.

a distributor and is considered sacred.

There are essentially two ways a distributor can approach the dealers on their list: directly or indirectly. Direct contacts involve calls by the telemarketing staff. They rely on the manufacturers' promotions and advertisements to pave the way for sales, and on the salesperson's own rapport with individual dealers. Their objective is to deliver a constant supply and an up-to-date variety of products to their dealers who can in turn sell to their customers.

Indirect contacts involve the use of mailings (such as catalogs, sales brochures, etc.) directed to specific retail establishments. Sales reps at companies that use indirect sales methods rely on incoming calls on the toll-free phone lines (order-only!) listed in their mass-mailed catalogs and literature. Either way, the more contacts they have, the more likely it is that your product will enjoy high volume sales.

But where do you find the distributors? First, check out the trade journals that concentrate on the marketing and selling of computer products: *Computer Dealer*, *Computer Market Research*, and many others cater specifically to computer dealers. Many distributors place ads in these and other trade magazines, touting new products or the benefits of purchasing from them. In the national consumer magazines, you can sometimes see ads from software companies that have a distributor's name listed for dealers to call, usually tacked on at the bottom of the ad in small print. (Often that dis-



tributor has even helped the company with the placement or creation of the ad-services that he may also be able to make available to you!) Also, if you know of someone who is selling through distributors, ask them who they deal with. Don't be afraid to use personal referrals on who's selling the most, who pays the best, and who is likely to give your product the best chance.

When calling a distributor, you need to speak with the purchaser. Talking to a salesperson will only distract him from his job, and it won't get you very far, either. Tell him who you are and what the call is about. Find out what his company is doing in the marketplace. He's also going to want to know about you, your company and your product. Is your product new and unique? What's its potential value to his dealers and to their customers? Has it been advertised, and where and how often? What's the retail price, and, of course, his price? He will need to know the terms of sale, which can be anywhere from COD to ten to thirty days net. He will also want to know how you will handle defective units, and returns for credit if the product doesn't sell (hopefully not necessary, but you'll still have to have a policy up front). Don't ask what he'll give you for your program! Besides sounding unprofessional, you'll be very disappointed. If you've priced your product carefully and kept your production costs reasonable, you'll be able to handle the 30-50% discount that will be required.

Make arrangements to show him your product, either in person or by sending a sample of your finished product. Don't send half-finished products with notes on how it's going to look! Set up a timetable so you'll know when you can expect a response from him, after he has had a chance to receive and review your product. Be flexible but be firm. Few companies can afford to send large numbers of

freebies to distributors who won't give you an answer. If they don't want to work with you, ask why and ask if they have suggestions on improving your product. If you show up in person, don't just walk in unannounced--no one appreciates that. Call and make sure the purchaser and you both need this sales visit. Above all, you need to sell him on you and your product. Remember, he has hundreds if not thousands of other products that he's trying to sell. You need to convince him that he can make money selling your product as well.

Although you're going to sell to the distributor at a discounted price, the larger sales volume (which you probably would not have been able to pursue on your own) will more than make up for it. Selling to distributors allows you to concentrate on what you do best--creating new products!

ALTERNATE AVENUES

One alternative to selling directly through computer-products distributors is to find someone who will sell your product to distributors for you; these are the national and regional independent sales representatives. One of the jobs of an independent sales rep is to contact and maintain distributors and retail establishments on your behalf. Many of the larger software houses sell through sales reps as well as through distributors. They call and visit with distributors on a periodic basis. They can provide a sales force for you that requires little overhead in the way of office supplies, payroll and employee benefits. Many of them can also help you develop marketing strategies for your products. But keep in mind, their time is money, too. The more you ask of a sales rep, the more it's going to cost. Most sales reps work for a percentage of the sales they generate, and all require some type of contractual agreement. I personally have not used reps, though I've known others who have,

with good to excellent results. But keep in mind, the only way a sales rep can stay in business is to represent many companies like yours. It's to his advantage to make sales for all the company product lines he represents.

There are two other methods of distribution you might want to look into: contracting with mail-order companies, or becoming an "associate products line" for a large software firm.

Mail-order companies can provide an outlet, but your exposure in their ads is small (though much cheaper) compared to the ad space devoted to independent products. All of the larger mail-order firms maintain a toll-free order line and are set up to handle COD shipments and credit card sales.

If a large software company is interested in your product or product line, one of the enticing aspects they provide is their depth of market penetration. There is strength in numbers. Just make sure you get a signed non-disclosure agreement from any software company before you send them your product for evaluation.

So there you have it. There are many ways to go to market, and I highly recommend not trying to go through all these channels at once. Look around, and be careful. You can either sidestep the established avenues of distribution and gain a larger profit margin (with correspondingly smaller sales volumes), or you can work with people who rely on their sales abilities for their (and your!) financial livelihood.

I realize that to some this series has seemed too light on details, while to others it may have been overly confusing. Believe me, there are dozens of books on these subjects. Visit your local library.

Thank you for letting me use your time to share some experience.

This series is dedicated to a baby angel in heaven, Jenny Lynn Immers.



LEEMON - AT LARGE

by Sheldon Leemon

Hello, and welcome to what I hope will be the first of many columns of my random ramblings to appear in *INFO*. Since it is just barely conceivable that some of you may not have ever heard of me, I figure that this is a pretty good time to trot out my credentials as computer critic at large, and to point out my own very modest role in the pageant of microcomputer history. By virtue of having followed the microcomputer industry for nigh unto ten years now, I guess I could be considered one of

This article reflects the views of Sheldon Leemon, and is the result of whatever environmental, social, and genetic influences have shaped and molded his development. We don't necessarily agree with anything he says, though if it's abrasive, insightful, and fun, we probably do.

provide an interesting perspective on how things have changed since I first got interested in computers. The MITS Altair, the first serious microcomputer, cost \$1,000 for the CPU, power supply, card cage, and front panel. A video terminal with keyboard and display screen added another thousand bucks, and 16K of static RAM cost another thou. The 300K disk drive (which weighed 40 pounds) didn't cost a thousand--it was two thousand. An 80-column 7-pin dot matrix printer cost almost \$2,400. Only two years after the Altair came out, you could get a complete 32K Apple II system with a disk drive for about 2,000 dollars. Come to think of it, Apple is still selling an Apple II system (the GS) for about \$2,000. Maybe some things haven't changed so much in ten years, after all.

My old magazine collection also provides important historical reference material that helps me when I read Jerry Pournelle's column in *Byte*. Jerry likes to keep up with the latest developments (they're all there somewhere, in his fabled pile of software and hardware freebies), but sooner or later he always slips back to the good old days of the S-100 bus. He'll be talking about the Amiga, and then he'll say something like how in his day, when a computer malfunctioned, you wouldn't get some silly Guru Meditation number up on the screen in tiny little characters you can't read without a magnifying glass. Thick black smoke would pour out of the back, and you'd call Bill Godbout to send George Morrow over to fix it. But I digress.

Modesty (ha!) forbids me from covering my own illustrious career in great detail. Suffice it to say that I got my first computer in 1979 (an Atari 800), and in 1980 sold my first program to Atari, and my first magazine article to *Compute!*. Since then I've written a game cartridge for Commodore (Avenger for the 64), and did the Commodore 64 translation of the classic *Strip Poker* (what was the *INFO* rating on that, anyway?). I've also written about eight computer books, among them "Mapping the Commodore 64", "Compute's Amiga-DOS Reference Guide" and "Inside Amiga Graphics". The magazines I've written for include *Compute!*, *SoftSide*, *Creative Computing*, *Video Review*, *Ahoy!*, *Amazing Computing*, *Computer Shopper*, and *AmigaWorld*.

Actually, if you look at that list, you may get the idea that I'm something of a jinx. The first magazine to actually publish one of my articles was *SoftSide*. Not too many people remember *SoftSide*, but in the early days, it was one of the biggies (probably by default--there really weren't too many other computer magazines around then). Whether because of my writing, or the fact that their business strategy was based on astrological signs, *SoftSide* is long gone. Then there's *Creative Computing*. I wrote a lot for them right near the end. Some people say that the day of the general-interest computer hobbyist magazine had just gone by, while others blame *CC's* demise on my *Commodore's Port* columns. Of course, to be fair, a lot of magazines have gone out of business without any help from me whatsoever. For example, I never wrote anything for *Commander* magazine. And some of the magazines I wrote for are still quite healthy--*Video Review* is doing well,



Two magazines I helped kill.

the "old-timers". That means that I remember little computers with strange names like Cromemco and Exidy (a company, which, by the way, is still in business as a manufacturer of coin-op arcade machines). I was around in the days when the Digital Group was on the cutting edge of technology, and the low-cost alternative was the Cosmac Elf (using the RCA 1802 processor). Why, I even remember when OS-2 was a model of computer from Ohio Scientific.

Although I didn't have enough money to actually buy a computer in those days, I eagerly awaited the appearance of each issue of my favorite computer magazines. My basement is knee deep in junk like the first *Kilobaud* from January 1977, and old copies of *Byte* from when each issue was the size of a pamphlet, not a telephone book. If nothing else, these old magazines

riding the crest of the VCR boom (though they've dropped their coverage of computer video games, just to be on the safe side).

I am looking forward to working with *INFO*, though. The problem with most computer magazines is that they take their duty to inform more seriously than their duty to entertain. In the interests of "responsible journalism" they shy away from making the kind of bold assertions and outrageous statements that offend advertisers and prompt lawsuits (which are considered the publishing equivalent of AIDS). Regular readers may have noticed that *INFO* isn't like that. I attribute this to fact that like myself, Mark and Benn just don't know when to keep quiet.

My first contact with Benn was a letter he wrote me congratulating me on an article of mine that was published in the *Computer Shopper* entitled "This Myth of ST Superiority". That article started as one of my on-line flames about the smear campaign that Atari was conducting against the Amiga, but I had the bad sense to let the *Shopper* publish it at a time when I was writing books and articles about the ST for various publications. As one ST owner wrote "I felt sick to my stomach when I read it". Not the best way to endear yourself to your audience. But then, my most famous previous on-line posting was a piece describing what an inferior piece of junk the Commodore 64 was compared to the Atari 800, in which I identified myself as the author of "Mapping the 64". Although time has borne out the truth of my assertions (the engineers who designed the Atari 800 went on to build the Amiga, while Tramiel and his associates have apparently moved on into cut-rate retailing, where they belong), it did not go over real big with 64 owners when I wrote it.

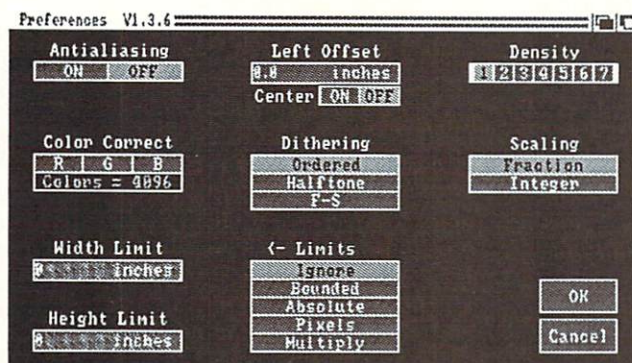
There are a couple of other real advantages of writing for *INFO*. First, I've never had my picture at the bottom of the column. The little, tiny smeared digitized jobs these guys use may not be much, but it's a start. Second, most other magazines wouldn't allow all of the shameless plugs for my books and stuff that I can get away with here.

My main computing interest these days is the Amiga. Actually, it's been my main interest since I first saw the bread-boarded prototypes nearly four years ago. Not only was the Amiga the most advanced computer in its price class when it came out, but Commodore has steadily worked on improving it. Take the 1.3 revisions, for instance. Oops, I can't really talk about them yet, because the Commodore documentation swears me to secrecy. But I can

nally designed to allow 2000 and 500 owners to switch back and forth between Kickstart 1.2 (in ROM) and Kickstart 1.1 (on four PROMS) under keyboard control. I thought it was a really dumb idea when I first heard about it, since any software that wasn't updated to 1.2 would die a quick (and timely) death. But with a 1.3 Kickstart disk in hand, and no way to put it in my 2000, the *Multi-Start* began to look like a very smart idea, after all. It allows hackers to switch between the standard version of the Operating System on ROM, and their own, modified version on EPROM, which is exactly the setup I cooked up to get a custom version of the Kernel on the Commodore 64. So I took my 2000 and 1.3 Kickstart disk into Michigan Software, and walked out with both 1.2 and 1.3 on ROM (note that until the official 1.3 release, the company will only burn 1.3 Kickstart PROMs for certified developers with original 1.3 Gamma Kickstart disks). With 1.3 virtually here, and 1.4 in the works, *Multi-Start*

guarantees that I'll always be up to date. At least until Commodore switches to bigger ROMs.

Multi-Start, \$129.95
Michigan Software
43345 Grand River
Novi, MI 48050
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The Graphics Parameters screen from AmigaDos V1.3 preferences.

say that they've added some really neat things this time. Also, I guess it's okay to show a picture of the new printer Preferences screen, since it's already been released with the *Shakespeare* desktop publishing program (by permission, of course). Since I can't explain it yet, you'll just have to wonder what all those little buttons and boxes are for.

One of the things 500 and 2000 owners want most to know about the new operating system is whether they'll have to get new ROMs (1000 owners, of course, just get a new Kickstart disk). Since the biggest Kickstart change provides for hard disk autoboot, you'll only need new ROMs if (1) you have a hard disk, (2) your hard disk controller provides for autoboot (none that are out yet do), and (3) you really want to boot from the hard drive. And then, there's the wait for Commodore to actually start shipping the ROMs. I'm too impatient for that, so I started trying to figure out how to replace my 2000's super-high-density ROM with four EPROMS. That's when I remembered the *Multi-Start* from Michigan Software. This neat little board was origi-

ABOUT THE AUTHOR:

After reading Sheldon's article, we figured we should probably print



a real article in this little box, since he essentially already filled two pages with a bio-note about himself. But that might be too nasty a thing to do to him his first time in *INFO*, so we won't. All we can think of to add to what he has already said is that he lives and works in Michigan.

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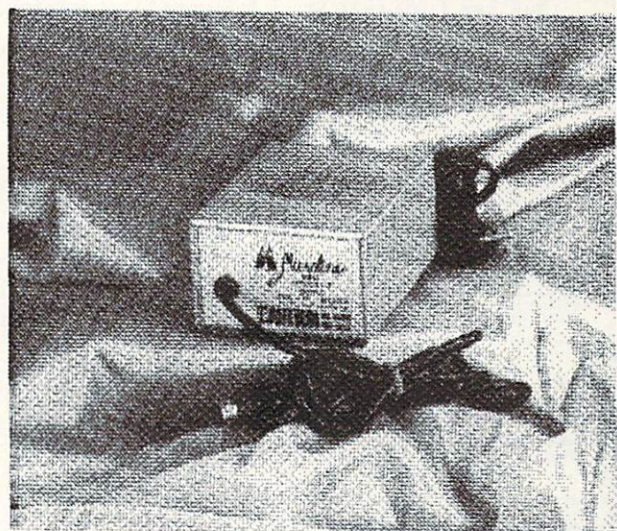
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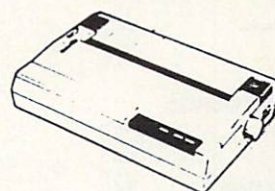
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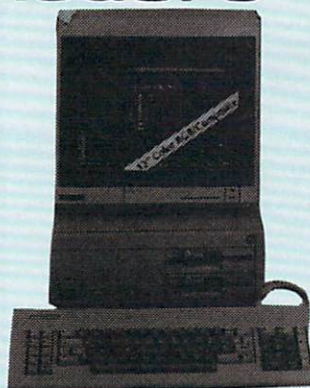
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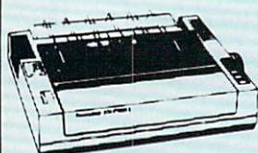
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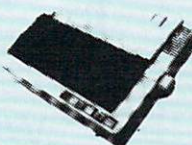
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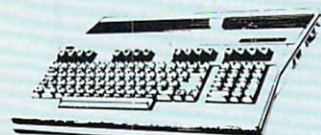


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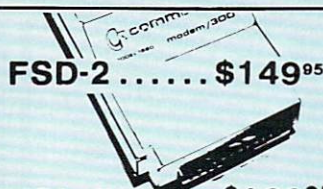
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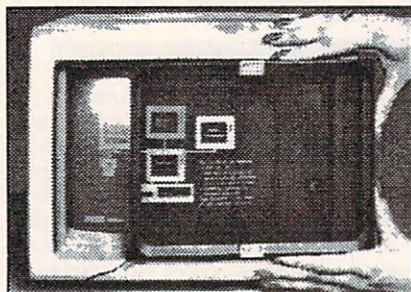
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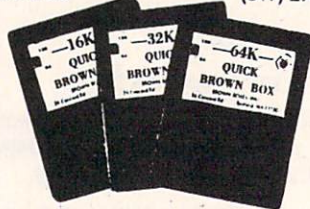
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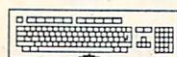
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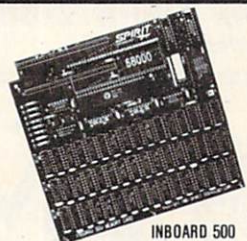
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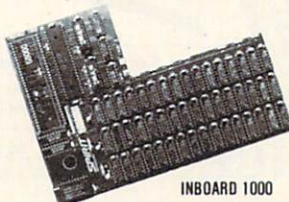
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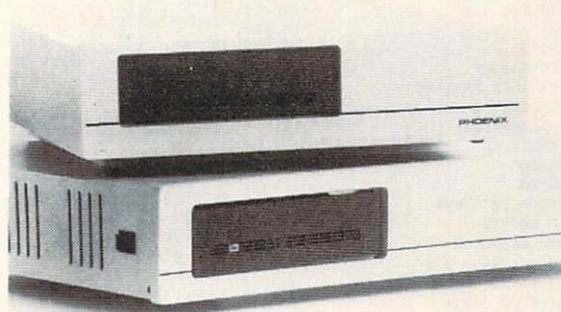
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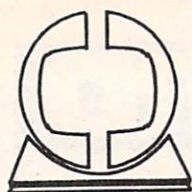


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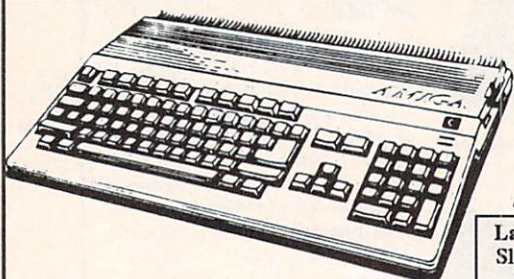
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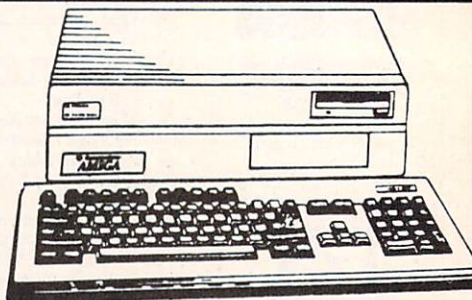
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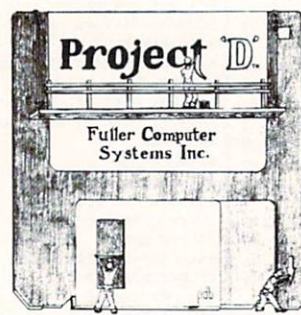
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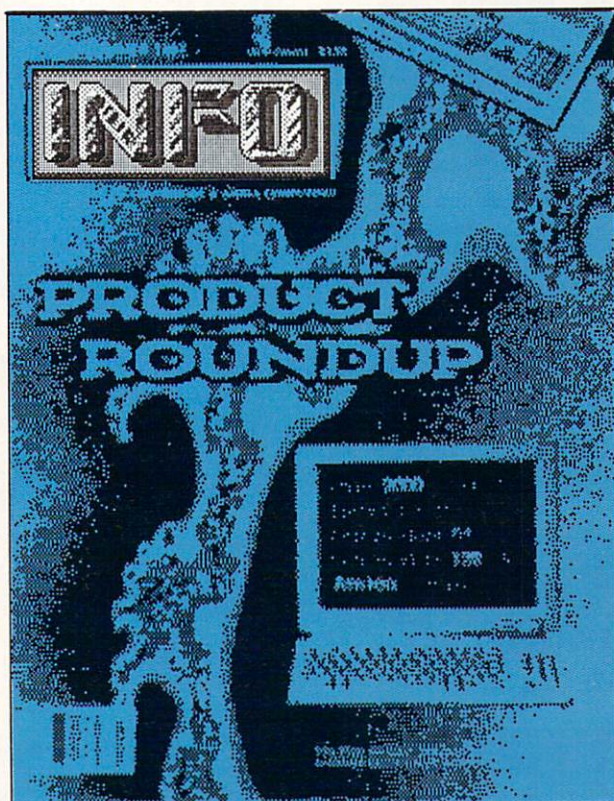
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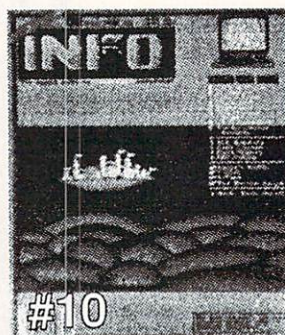
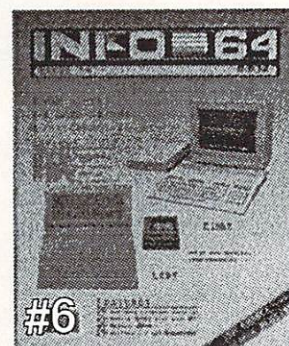
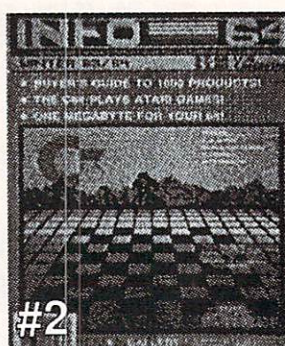


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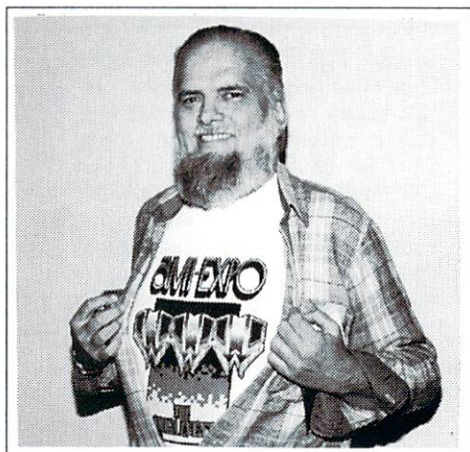
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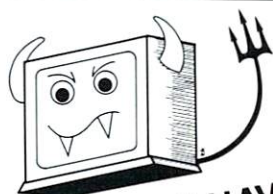
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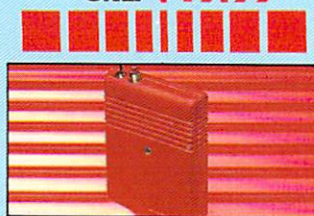
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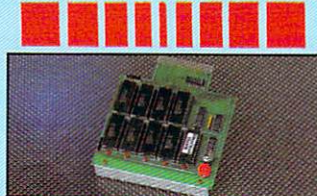


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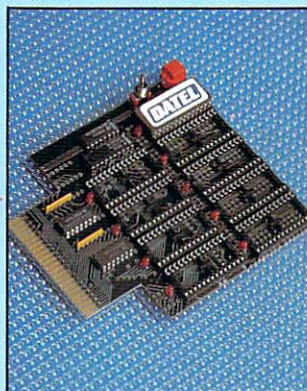
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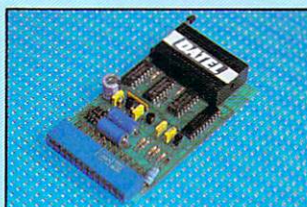


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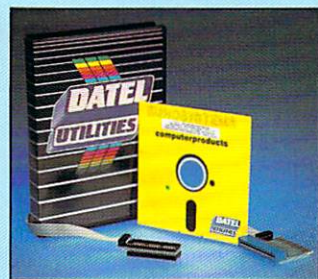
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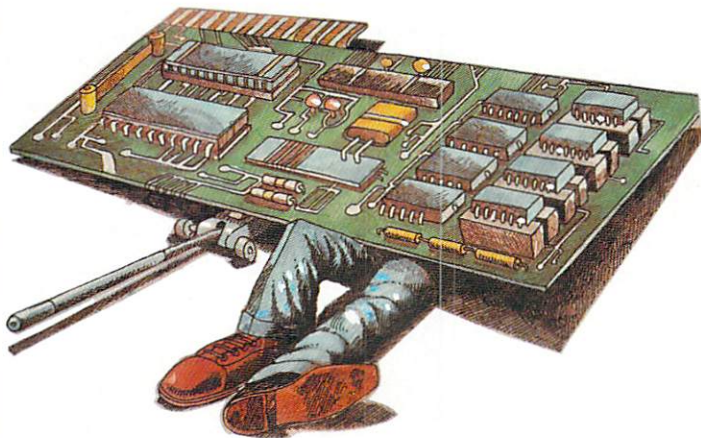
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AT PRESS TIME...

NEW AMIGAS ANNOUNCED!

At the recent West German Hanover Faire, Commodore chairman Irving Gould made the official announcement of two new Amiga models.

The new model **A2500** will be released in two versions. The **A2500AT** will feature a motherboard equipped with a 68020 processor and 68881 math chip, an 80286 PC/AT Bridgeboard, and 40 megabyte autoboot hard drive. The configuration is based on the technology currently available in Commodore's 68020 card and 286 AT Bridgeboard for the A2000.

The **A2500UX** will ship with the same 68020/68881, plus an autoboot hard drive of up to 100 megs capacity. The UX stands for UNIX, and the operating system will be a Unix 5.3 compatible system, which Commodore refers to as "a proprietary high performance windowing user shell". There will also be an optional tapestream storage device.

Surprisingly, Commodore also officially announced that they are really working on the fabled **Amiga 3000**. This machine will, like the Mac II, use Motorola's 68030 cpu chip, have built-in networking capabilities, and address mass storage devices with capacities up to 2.2 gigabytes. Gould made it clear that the A3000 will not ship until 1989.

For the real power user, Commodore said they are working with a German research institute to develop a **Transputer** workstation based on the A2000. This high-end workstation will be particularly suited for professional research and heavy-duty graphics applications.

PORTABLE AMIGA!

We've just found out that a portable Amiga is under development, but it won't come from Commodore. **Dynamac**, a third-party company that builds Macintosh portables, has begun R&D on a portable Amiga based on the A500. Our source says that Commodore is enthusiastic about the project, and has offered to make special boards to fit the portable case. And, with Apple ready to introduce its own portable Mac, it is said that the folks at Dynamac are enthusiastic about beefing up their line with the portable Amiga model. Details on the machine are unavailable--we called Dynamac, but at this point they are "neither confirming nor denying" the project. Their only comment was: "No comment". Our source says the project is in its early stages, and they are still working out the type of display, memory configuration, number of drives, hard drive options, etc. For reference, Dynamac's Mac portable comes with either a gas plasma or electroluminescent display, 1-4 megs of RAM, and hard drive of up to 40 megs. It retails for \$3995 and up.



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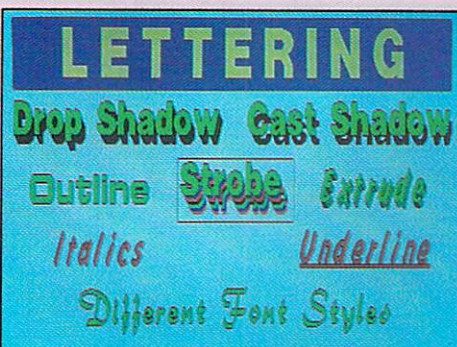
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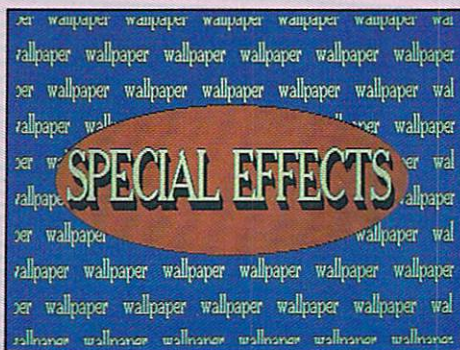
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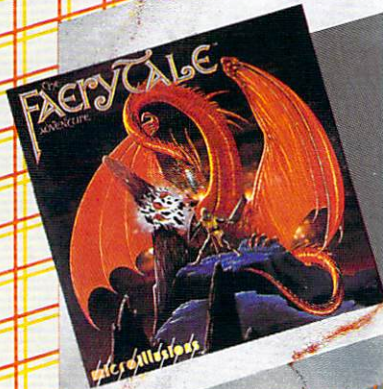
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